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WEST AFRICA ENERGY PROGRAM

QUARTERLY PROGRESS REPORT

WEST AFRICA REGIONAL ACTIVITIES (CLIN 0001)

OCTOBER 2020 – DECEMBER 2020

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IDIQ Contract No. 720-674-18-D-00003 Power Africa Extension (PAE)

Task Order No. 720-674-19-F-00008 West Africa Energy Program (WAEP)

Task Order Contracting Officer's Representative (CLIN 0001): Rockefeller P. Herisse, Ph.D.

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Cover photo by Power Africa

Acronyms

Acronym	Definition
ACGP	Administration et Contrôle des Grands Projets
AFC	Africa Finance Corporation
AFD	French Development Agency
AfDB	African Development Bank
ASER	Agence Sénégalaise d'Electrification Rurale
BOAD	Banque Ouest Africaine de Développement
CAC	Control Area Centers
CEET	Compagnie Energie Electrique du Togo
CIE	Compagnie Ivoirienne d'Electricité
CI-Energies	Energies de Côte d'Ivoire
CLIN	Contracting Line Item Numbers
CO	Contracting Officer
COP	Chief of Party
COR	Contracting Officer's Representative
COVID-19	Novel Coronavirus Disease 2019
CRSE	Commission de Régulation du Secteur de l'électricité
CSCE	Civil Society and Community Engagement
DCOP	Deputy Chief of Party
CLSG	Côte d'Ivoire-Liberia-Sierra Leone-Guinée
DtP	Desert to Power
ECOWAS	Economic Community of West African States
ECREEE	ECOWAS Centre for Renewable Energy & Energy Efficiency
EDG	Electricité de Guinée
EMMP	Environmental Mitigation and Monitoring Plan
ERERA	ECOWAS Regional Electricity Regulatory Authority
ERP	Enterprise Resource Planning
ESBI	Electricity Supply Board International
EXIM	Export-Import Bank
FinTech	Financial Technology
FONSIS	Fonds Souverain d'Investissements Stratégiques
FY	Fiscal Year
GIS	Geographic Information System
GOG	Government of Guinea

GOL	Government of Liberia
IDCB	Institutional Development and Capacity Building Specialist
IDIQ	Indefinite Delivery, Indefinite Quantity
IRRP	Integrated Resource and Resilience Plan
IPP	Independent Power Producer
KM	Kilometer
LEC	Liberia Electricity Company
LPRA	Liberia Petroleum Regulatory Authority
LTTA	Long Term Technical Advisor
MCC	Millennium Challenge Corporation
MEL	Monitoring, Evaluation, and Learning
MHI	Manitoba Hydro International
MOE	Ministry of Energy
MOEH	Ministry of Energy and Hydraulics
MOF	Ministry of Finance
MOMG	Ministry of Mines and Geology
MOU	Memorandum of Understanding
MW	Megawatt
NDA	Non-Disclosure Agreement
NAST	Needs Assessment Survey Tool
OCAT	Organizational Capacity Assessment Tool
OC	Outcome
OMVG	Gambia River Basin Development Organization
OMVS	Senegal River Basin Development Organization
PA	Power Africa
PACO	Power Africa Coordinator's Office
PATT	Power Africa Tracking Tool / Power Africa Transaction Tracker
PMU	Project Management Unit
POC	Point of Contact
PPA	Power Purchase Agreement
PSC	Production Sharing Contract
PURA	Public Utilities Regulatory Authority
PPP	Public Private Partnership
PV	Photovoltaic
Q	Quarter
QTAT	Qualified Transactions Assistance Tool

RFI	Request for Information
SEFA	Sustainable Energy Fund for Africa
SAEP	Southern Africa Energy Program
SGA	Senior Gender Advisor
SODEN	Société des Energies Nouvelles
SOW	Statement of Work
SRTL	Senior Regional Technical Lead
STEM	Science, Technology, Engineering, and Mathematics
STTA	Short Term Technical Advisor
TAS	Transaction Advisory Services
TBI	Tony Blair Institute
TO	Task Order
TOCOR	Task Order Contracting Officer's Representative
TRANSCO CLSG	Transmission Company Côte d'Ivoire, Liberia, Sierra Leone and Guinée
TSA	Transmission Services Agreement
TWh	Terawatt Hour
US\$	United States Dollar
USAID	United States Agency for International Development
USG	United States Government
USTDA	United States Trade and Development Agency
WAEP	West Africa Energy Program
WAPP	West African Power Pool
WFH	Work-From-Home
WiAP	Women in Africa Power

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EXECUTIVE SUMMARY

This Quarterly Progress Report covers the period from **October 1, 2020 through December 31, 2020** [USAID Fiscal Year 2021 (FY21), Quarter 1 (Q1)]. The FY 21 Quarterly Progress Report (“the Report”) details the Program’s activities in Quarter 1; from assessing and formalizing the technical assistance needs of institutions across the region, fostering engagement with new strategic counterparts, and implementing a successful webinar series to assist utilities and regulators to navigate and mitigate the impacts of the Coronavirus Disease 2019 (COVID-19) on their operations. The West Africa Energy Program (“WAEP” or “the Program”) team continued the Work-From-Home (WFM) system, which involved remote work and communication with all stakeholders, while management monitored the progress and impacts of COVID-19 pandemic across the region. The WAEP management team continues to evaluate when a return to office will be possible.

Below is an overview of the Program’s key events, milestones, and achievements over the 3-month period covered in the Report:

- Collaborated with West African Power Pool (WAPP), a key Program counterpart, to accelerate the regional power market by delivering technical assistance and capacity building programs to WAPP’s Information and Communication Center and Administration and Finance Department. The WAEP team also delivered a virtual training plan for business impact assessments to bolster WAPP’s capacity in managing COVID-19 impacts and a plan for a webinar series promoting the importance and value of system-wide planning and power system planning tools.
- The WAEP team participated at the WAPP Technical and Financial Partners (TFP) Annual meeting and General Assembly which focused on discussing the impact of the COVID-19 pandemic on continuity in delivering key WAPP projects and possible solutions to push for continuing development of the regional electricity market amidst the current challenges created by the COVID-19 pandemic.
- Assisted the Liberian Petroleum Regulatory Authority (LPRA) in its first offshore licensing round in 2020, by incorporating international standards and raising investor interest.
- Obtained a formal consent from Benin’s Ministry of Energy (MOE) for collaboration across generation, transmission and distribution efforts. This paved the way for the signing of a letter of collaboration (LOC) and launching support for a 250,000 connections project.
- Formalized the collaboration process between the Program and SENELEC, Senegal’s utility. The main areas requested by SENELEC for collaboration are universal electricity access and customer connection programs.
- Delivered five of the six planned webinars to utilities in West and Central Africa as part of the COVID-19 Webinar Series with the Association of Power Utilities of Africa (APUA). Nearly 500 participants attended the series, over 20 percent of whom were women, representing more than 16 utilities and power sector training institutions across the African continent.
- Delivered an adapted regulatory Needs Assessment Survey Tool to Economic Community of West African States (ECOWAS) Regional Electricity Regulatory Authority (ERERA) to develop a roadmap for promoting beneficial regulatory frameworks. The WAEP team received a total of 14 completed NASTs from regulators in Benin, Burkina Faso, Congo Brazzaville, Côte d’Ivoire, Chad, DRC, Gabon, Guinea, Liberia, Senegal, Sierra Leone, Niger, The Gambia and Togo. The reports identify a number of common challenges for regulators in the region including technical assistance and capacity building needs for tariff setting and evaluating offers from independent power producers (IPP).

- Presented findings of utility NAST to WAPP. The NAST results inform the Program's activities to support power systems analysis and planning tools for harmonizing regional and national power planning tasks and the WAEP team's support of utilities in performance improvements and loss reduction.
- Submitted the draft Senegal gas assessment to the African Development Bank (AfDB). The report provided by the Program to the AfDB will inform decision making on financing gas-to-power projects in Senegal including the 120MW Malicounda power project. This report will inform support for bringing to financial close the converted or newly built gas plants in Senegal.
- Supported loan acquisition for an additional 645 MWs of power on Côte d'Ivoire's grid. The WAEP team activated the loan disbursement process on the lender's side by clearing all necessary condition precedents required. Previously, the WAEP team provided transaction advisory support to CI-Energies on the debt financing of transmission infrastructure connecting Ciprel V (390MW) and Azito IV (255MW) to the interconnected grid of Côte d'Ivoire. This new development allows the WAEP team to add 390 MWs from CIPREL V.

I Introduction

1.1 The Program

The **USAID-funded West Africa Energy Program (“WAEP” or the “Program”)**, a Power Africa initiative, implemented by Deloitte Consulting LLP as Task Order Contract Number 720-674-19F-00008 under the Power Africa Indefinite Delivery Indefinite Quantity contract, seeks to expand supply of and access to affordable and reliable grid-connected electricity services in West and Central Africa.

The objective of the Program is to expand supply of and access to affordable and reliable grid-connected electricity services in West Africa. The Program has the ultimate goal of advancing development priorities, including inclusive economic growth, increased security, and improved health and education. Progress toward this goal is outlined in the Power Africa Roadmap, which functions as the master plan that describes how Power Africa and its partners will fulfill its objectives.

The Program comprises two components delineated by two Contracting Line Item Numbers (CLINs) respectively for the **West and Central Africa Region** (CLIN 0001) and **Ghana** (CLIN 0002). The Program will collectively provide a range of technical assistance, capacity building, and transaction support to advance Power Africa’s objectives. Only the Program’s activities in the **West and Central Africa Region** are reflected in this Quarterly Progress Report. Expected results for CLIN 1 are as follows:

- 8,000 MWs of new power generation capacity reach financial close
- 3,800 kilometers (km) of new transmission lines commissioned
- 3.5 million on-grid connections (including new and regularized)

1.2 Overview

WAEP’s contract scope in West Africa seeks to increase electricity availability and access in the region while objectively quantifying and measuring progress towards four key Outcomes and their expected Results, as follows:

- Increased supply of power
- Access to reliable and affordable grid-based power increased
- Performance of national utilities and power sector entities improved
- Establishment of a high-functioning regional power market accelerated

The WAEP team is working to achieve these outcomes (OCs) by strategically aligning energy reform and electrification goals, with new investment opportunities. This will include working to bring transactions to financial close, coordinating with the private sector, prioritizing the most viable projects, and building human and institutional capacity within targeted priority utilities, government, and regional institutions.

2. MAJOR ACTIVITIES DURING THE REPORTING PERIOD

In this reporting period, the WAEP team engaged in 17 of WAEP’s 22 regional focus countries.² Across the region, the Program collaborated with national ministries, utilities, transmission and distribution companies, regulators, and the private sector.

2.1 COVID-19 Redirect Activities

¹

²² Benin, Burkina Faso, Cameroon, Cape Verde, Chad, Côte d’Ivoire, Democratic Republic of the Congo, Gabon, The Gambia, Guinea, Guinea-Bissau, Liberia, Mauritania, Niger, Senegal, Sierra Leone, and Togo

2.1.1 Activity Highlights

Through the COVID-19 Redirection Proposal, the WAEP team developed a specific approach to help targeted beneficiaries identify and mitigate COVID-19 related challenges. The proposal was intended to support beneficiaries as they absorb implications of the pandemic and adapt and transform their operations and programming to increase resilience in a post-COVID-19 world. The activities outlined in the proposal were primarily targeted to be implemented in Q4 of Year 1 and Q1 of Year 2. Due to the continuing challenges of COVID-19 and with USAID approval, support in the technical assistance areas outlined in the proposal will continue throughout Year 2. Areas of support focus on addressing and mitigating impacts of COVID-19 on utilities and government counterparts in terms of operations, planning, finances, and project development.

- **Support Developers to Find New Financing Sources or Secure Risk Mitigating Products to Close on Financing:** The WAEP team conducted due diligence to determine if opportunities exist to support developers facing challenges with obtaining financial closure for their projects. No sponsor confirmed having any challenges with financial closure due to COVID-19. However, the Azito IV/CIPREL V project in Côte d'Ivoire was delayed due to COVID-19. The WAEP team closed the first component (CIPREL V) in September 2020 and has supported the closing of the second component (Azito IV) in November 2020.
- **Provide Advisory Services to Governments to Assess and Structure Potential Subsidies to Alleviate Financial Impact of COVID-19 on Vulnerable Households to Ensure Access to Basic Electricity Services:** The WAEP team prepared and issued a first draft of a business impact assessment report for the Government of Benin, which captures the impact of COVID-19 on the power sector. On November 24, 2020, The WAEP team received formal consent from the General Manager of Direction Générale des Ressources Énergétiques (DGRE), Mr. Assan Todeman, to conduct the impact study. The WAEP team is currently responding to inputs from Mr. Todeman and intends to submit a final report in Quarter 2. This report will assess the effects of COVID-19 on vulnerable households, identify solutions and sources of funding to maintain their access to electricity services, and issue recommendations to the Government of Benin.
- **COVID-19 Redirection Support for Business Continuity Planning:** In partnership with APUA, the Program organized and delivered a “Business Impact Assessment and Continuity Planning” virtual workshop on November 3, 2020 as part of the COVID-19 Webinar series. Over 100 participants joined the session to gain insights on developing and revising business continuity plans.
 - **Business Impact Assessment of Liberia Electricity Corporation (LEC) Key Performance Indicators (KPIs):** The LEC management requested the WAEP team to assess the impact of COVID-19 on 11 KPIs from LEC's Five-Year Business Plan. In November 2020, the WAEP team continued the data gathering phase by interviewing key members of the LEC executive team as well as outside counsel. The WAEP team then drafted the COVID-19 Impact Analysis, to which LEC provided feedback. Lastly, the WAEP team began working on the targeted KPI Recovery Strategy. This KPI Recovery Strategy will be finalized with LEC and sets revised KPI targets based on the COVID-19 impact analysis and demonstrates analysis of current state and desired state to hit revised KPI targets. The KPI Recovery Strategy will be formulated into a revised Business Plan that LEC management will follow starting in 2021. The team is preparing a revised and final Business Plan draft for submission to LEC in Quarter 2.
 - **COVID-19 and Business Continuity Planning (BCP) for WAPP Administration and Finance (A&F) Directorate:** The WAEP team pursued its work on developing the logic impact model for WAPP Secretariat impact categories including supply chain workforce and business/financial continuity. The WAEP team did not receive response from WAPP A&F despite

follow-up. This lack of communication was understood as lack of interest in the support and the team has since pivoted support to other efforts.

- **Conduct Energy Demand Assessments to Improve Demand Forecasting, Energy Balancing Facilities, and Assess the Impact of COVID-19 in Two Countries (Senegal and Sierra Leone):** SENELEC and the WAEP team developed a SOW for the Program to provide support in conducting energy demand assessments. A kick-off meeting is planned for early 2021.

In Sierra Leone, the WAEP team engaged the Millennium Challenge Corporation (MCC) for support in connecting with counterparts to ascertain their interest in the assessment and demand forecasting support. On November 13, 2020, the WAEP team met with the MCC-Sierra Leone team, led by Chief Executive Officer (CEO) of the Operational Unit, Ms. Fatu N'Deye. Ms. N'Deye indicated she would connect the WAEP team with the Planning Unit of the Ministry of Energy (MOE) to engage on the SOW related to the Energy Demand Assessment activity. The team is still working to be connected to the MOE.

For Benin, the draft SOW will be submitted to the cabinet of the MOE, along with the LOC prepared for other activities regarding connections.

- **Assess Impacts on National Universal Electricity Access Activities or Connection Activities in Two Countries (Senegal and Benin):** On November 23, 2020, SENELEC accepted support from the Program for COVID-19 impact assessments and business continuity planning support related to national universal electricity access or connection activities. The Program will assist SENELEC in managing an impact assessment study being prepared by the SENELEC team and an external consultant. The WAEP team's role includes providing strategic advisory, closely monitoring the study, and reviewing the consultant's deliverables. The Program is awaiting a meeting invitation from SENELEC's Strategic Technical Advisor to the CEO, Mr. Moustaph Baïdy Ba, to launch the impact assessment activity.

In Benin, as reported above, the WAEP team received formal consent on November 24, 2020 from the DGRE General Manager to conduct the impact study.

- **WAEP-APUA COVID-19 Webinar Series:** To help utilities in West and Central Africa navigate COVID-19 related challenges, APUA and the WAEP team partnered to deliver a webinar series that provided capacity building sessions and a knowledge-sharing platform for utilities to exchange experiences and leading practices. The webinars featured distinguished guest speakers from across the energy sector. Five (out of six total) webinars were delivered in this reporting period, with the sixth webinar postponed until FY21 Q2. Nearly 500 participants attended the series, over 20 percent of whom were women, representing more than 16 utilities and power sector training institutions across the African continent. Details of each webinar is presented below.

Table 1: WAEP and APUA COVID-19 Webinars

Title	Brief Description
Webinar 1: COVID-19 Impacts on the Power Sector in West Africa October 20, 2020	<p>As utilities address the effects of COVID-19 on their operations and service delivery, they lack the resources to analyze the broader, higher-level implications across the energy sector that can have an impact on their businesses. Without having this broader perspective, utilities will have a difficult time increasing their resiliency and planning abilities.</p> <p>Based on lessons learned and an understanding of the West African energy sector, the WAEP team presented the impacts of COVID-19 on the power sector, trends, and best practices for response and recovery. Topics included in this report: residential lockdowns and public health, energy consumption, exports, investments in the mining sector, impact on power project financing and implementation, country efforts to move towards universal electrification, and “back-to-normal” practices. The presentation highlighted case studies from utilities in West Africa. The goal was to prompt discussion among utilities on challenges experienced and lessons learned.</p>
Webinar 2: Communication within the Utility during COVID-19 October 27, 2020	<p>The WAEP team provided a toolkit to utilities to help counterparts think through change management, effective internal crisis communications, and workforce safety procedures/Personal Protective Equipment (PPE). The goal of this toolkit was to equip utilities to effectively oversee and communicate to staff about safety measures in the new COVID-19 work environment.</p>
Webinar 3: Business Impact Assessment and Continuity Planning November 3, 2020	<p>As COVID-19 continues to pose additional challenges to utilities and businesses across the West African energy sector, it is critical to holistically analyze the operational impacts of the crisis and develop an effective continuity plan to address key issues. This webinar was focused on strengthening organizational resiliency and ensuring continuity of operations by sharing tools and knowledge to create or revise current business continuity plans that address COVID-19 challenges and future unprecedented crises.</p>
Webinar 4: Customer Engagement during COVID-19 November 10, 2020	<p>During a crisis, customers and key stakeholders must be informed of developments and have access to information that has implications on their behavior. This webinar provided utility management with leading practices for strategic crisis communications, as well as guidance on how to communicate key topics and messages related to COVID-19.</p>
Webinar 5: Assistance in Financial Planning November 17, 2020	<p>The webinar discussed the collapse of financial markets in emerging economies as well as options to assist utilities in West Africa to maintain financial health during the crisis. At a high level, the webinar aimed to build capacity to design financial planning strategies for utilities to recover from COVID-19 financial losses. The webinar also provided an overview of sources of available grants, concessionary finance, and general relief funds.</p>
Webinar 6: Power Purchase Agreements	<p>This webinar will be conducted in the format of a panel on the challenges of PPA negotiation in the region, which is exacerbated under the current context of COVID-19. The objective of this panel is to hear perspectives from Development Finance Institutions (DFI), developers, and utilities on the</p>

2.2 Outcome I: Increased Supply of Power

2.2.1 Activity Highlights

The WAEP team strengthened relationships with multilateral organizations and government entities in key countries. For the former, the WAEP team actively engaged the AfDB on the G5 Sahel region by supporting private sector transactions in Chad, and on other activities such as the Malicounda gas power plant and contributions to the strategy development in the African Energy Market Place event. For government support, the WAEP team concluded the active support to the utility in Côte d'Ivoire and initiated new support to SENELEC in Senegal. Simultaneously, actively liaising with similar entities in Chad, Niger, and Sierra Leone. The section below presents a detailed breakdown of progress on technical activities.

Outcome I Highlights

- Completed the support to the stranded generation asset Azito IV plant to release 255 MWs to the grid in Côte d'Ivoire
- Formalized engagement with SENELEC, the Senegalese utility, to undertake activities including Energy Demand Forecasting, capacity building for Gas strategy development, strengthening master plan and/or Integrated Resource Planning (IRP)

Regional and Country Highlights

Regional

- **Desert-to-Power (DtP) Initiative:** The Tony Blair Institute (TBI) and the AfDB are leading a solar initiative across the Sahel region that is expected to connect 250 million people to electricity. Following the execution of the LOC between the African Development Bank (AfDB) and WAEP, the AfDB team reviewed the G5 country roadmaps and the regional roadmap. The WAEP team also shared a draft of potential Program support on the Roadmaps (Collaboration Activities Plan) with the AfDB team. The WAEP team will develop support in alignment with pillars in AfDB's roadmap which include production increase and hybridization, transmission and interconnection extension, off-grid expansion, improvement of utilities performance and better enabling environment and appropriate private sector participation frameworks.

In addition, the WAEP team is assisting Sustainable Energy Fund for Africa (SEFA) in structuring the Technical Assistance (TA) and Terms of Reference (TOR) to hire a firm that will advise Société National d'Electricité of Chad (SNE) to: (i) develop a management protocol for dispatching intermittent power and using the Batteries Energy Storage System (BESS) for the 32MW PV Djermaya project; (ii) train SNE staff on Photovoltaic (PV) technologies, batteries and dispatch management and; (iii) help operate intermittent dispatch into the SNE system for the first 18 to 24 months of operation after the commercial operation date of the PV and the transfer of the BESS to SNE. The team has had discussions with Wärtsila, a technology provider, to assess the impact on the operating mode of existing Wärtsila units at Farcha 2 by intermittent power injection (particularly Djermaya and Quadran PVs) and the potential needed changes, modifications and costs.

The WAEP team continued to assist the AfDB financing teams on photovoltaic (PV) IPPs, such as 32MW Djermaya and 30MW Quadran in Chad, which are part of the Roadmap projects for the country. In the case of Djermaya, the assistance involved the continued support on the due diligence process, the review and provision of inputs on specific issues related to project documents (PPA, Put and call Option Agreement-PCOA and others) and finance documents (Common Term Agreement,

Partial Risk Guarantee documentation, etc.). In the case of Quadran, the assistance involved supporting the AfDB team on their approval process to move forward together with the Dutch Development Agency (FMO) with the financing mandate of the project, the review and provision of inputs on project development advances.

The WAEP team participated in the annual Africa Energy Market Place (AEMP), a platform for governments, development partners, developers, and private sector players to match needs and resources. This event, organized by AfDB, was held from December 8-10, 2020 and the main topic was the Desert-to-Power (DtP) initiative. The event gave the WAEP team insight into government priorities and an opportunity to scope potential assistance.

- **Regional Electricity Transmission Company for Côte d'Ivoire, Liberia, Sierra Leone and Guinée (TRANSCO CLSG):** The WAEP team analyzed opportunities to wheel power from Liberia to neighboring countries through the CLSG interconnector. The Program has engaged the TRANSCO CLSG, the Special Purpose Vehicle in charge of the management of the CLSG interconnection, to discuss the pricing and contractual structure of wheeling on the line. The team will continue to engage TRANSCO to help Gigawatt Global in its discussions with Liberia Electricity Company. Wheeling excess power across the border from the Mount Coffee Solar Project would reduce the financial burden on LEC under a take or pay contract arrangement and improve the overall bankability of the project. Under this scenario LEC could sell excess power through the CLSG line as needed.

Côte d'Ivoire

- **Ciprel V Gas-to-Power Plant:** The WAEP team is assisting the generation utility, Energies de Côte d'Ivoire (CI-Energies), in the identification of debt financing for a 400kV transmission line needed for the connection of the 390MW Ciprel V gas-to-power plant and the 255MW stranded generation asset, Azito IV power plant. The potential evacuation of power from these two power plants will assist in releasing 645 MWs to the interconnected grid of Côte d'Ivoire and 70km of transmission line.

Guinea

- **Improving Bankability of IPPs and Transaction Support:** The WAEP team is undertaking an exercise to identify credit enhancement mechanisms for the offtaker in Guinea. The financial weakness of the offtaker (EDG) is a major factor impairing the bankability of independent power projects in Guinea. Recognizing that only a limited number of PRGs are issued by the World Bank and African Development Bank, identifying alternative options is a critical component to advancing the qualified WAEP projects in Guinea. The WAEP team notes that there is a reasonable probability of being able to assist in reducing bankability barriers to IPPs in Guinea. There is a robust pipeline of much-needed generation projects to support. The team also identified a pipeline of 7 eligible projects representing 629 MWs and 13 other projects representing 1322 MWs are yet to be qualified or revisited.

Liberia

- **Gigawatt Global:** The WAEP team is supporting Gigawatt Global on the development of a 20MW Solar PV plant in Mount Coffee, Liberia. The Program is helping the developer to structure the project in order to strengthen its bankability and sustainability for the Liberian market. The team anticipates that PPA negotiations with the Liberian Electricity Regulatory Commission (LERC) will commence in early 2021. The Sponsor requested the Program's assistance with reviewing the PPA to ensure it is bankable, as this would be the very first IPP in Liberia.

Senegal

- **Malicounda 120MW Gas-to-Power Project:** The Malicounda 120MW project is a sustainable IPP gas project that will contribute to reducing electricity tariffs for Senegalese electricity consumers. Following the WAEP and AfDB teams' discussions on indemnification terms, the agreed approach is to introduce a new version of the SOW which does not require disclosure of project information. On November 27, 2020, the WAEP team shared the latest version of the SOW, including the amendments and recommendations from AfDB.

On December 11, 2020, the WAEP team shared the draft Gas Supply Assessment Report, which will assist AfDB on financing. With this assessment, it is expected that Malicounda will reach financial closure in 2021, pending validation of the final version of this report and other financing decisions by AfDB on gas-to-power projects.

- **Integrated Resources Planning (IRP) support to the Regulator of Electricity Sector in Senegal (CRSE):** The Regulatory Commission for the Electricity Sector (CRSE) requested the WAEP team to design and support the development of the IRP, including developing a handbook and assisting with capacity building for CRSE staff. The WAEP team discussed the SOW with the CRSE team on November 12, 2020 and is awaiting feedback.
- **Enertec – 25MW Wind Farm:** The WAEP team reviewed Potou's project financial model. The team plans to engage in capacity building with the developer to update the financial model and the assumptions as needed during ongoing project development. The training is scheduled for January 2021. The team also plans to provide guidance to Enertec on potential investors, including a German investor who has expressed interest in the project. Enertec confirmed that the International Renewable Energy Agency is currently supporting the sourcing of potential co-developers. Enertec suggested that the WAEP team have an introductory meeting with IRENA to explore collaboration routes.

Sierra Leone

- **Western Area Power Generation Project – 85MW Gas to Power:** Project sponsors Milele Energy and TCQ completed a Qualified Transactions Assistance Tool (QTAT) which was submitted to USAID for review. US Development Finance Corporation is actively engaged with the Western Area Power Generation Project sponsors considering both project finance and political risk insurance options. Following QTAT approval, the WAEP team will help the project identify potential investors to raise equity, prepare investment memoranda, and review project documentation to improve project bankability.
- **Betmai – 27MW Hydro:** The WAEP team signed a Non-Disclosure Agreement (NDA) with the Sierra Leonean developer, SEWA Energy, regarding support on the Betmai project, a 27MW hydroelectric power plant currently under development. The project sponsor has requested assistance in six areas:
 1. Support on the due diligence process with the World Bank for the issuance of a PRG
 2. Identification and review of alternative credit enhancement options
 3. Support with identifying equity sponsors and assistance with facilitating ongoing discussions with potential lenders
 4. Assisting the EPC tender process; including reviewing key bankability and risk allocation provisions
 5. Supporting CLSG line-related discussions to help SEWA consider wheeling power through the line
 6. Conducting a gap analysis for existing ESIA documents

Pending QTAT approval from USAID, the team will define a specific SOW based upon the sponsor's expressed needs. The Rockefeller Foundation is also assisting the Betmai project and has expressed strong interest in collaborating with the WAEP team to help the project reach financial close.

2.3 Outcome 2: Access to Reliable and Affordable Grid-Based Power Increased

2.3.1 Activity Highlights

The WAEP team identified countries for targeted assistance on gaining connections: Côte d'Ivoire, Senegal, Togo, Benin, Guinea, and the G5 Sahel countries. The team then worked to prioritize projects in these countries for technical assistance, using engagement with counterparts and analysis of donor mapping data to identify projects with a high potential for connections.

The section below presents a detailed breakdown of meetings and progress on technical activities.

Outcome 2 Highlights

- Formalized partnership with SENELEC to support Universal Electricity Access and customer connection programs in Senegal.
- Engaged with Togo's new Minister of Energy to initiate collaboration with the Program

Regional and Country Highlights

Regional

- **Sahel Desert-to-Power (DtP) Initiative:** The WAEP team reviewed the DtP Regional and Country Roadmaps for Niger and Burkina and held discussions with the respective utilities, Nigerien Electricity Company (NIGELEC) and Société Nationale d'électricité du Burkina Faso (SONABEL), both of which are receptive. The team proposes to work in those two countries and develop replicable approaches with DtP to improve utility efficiency and increase connections across the G5 Sahel. Under consideration is an approach, common among utilities in the U.S., of using local private contractors for construction of new line extensions, distribution network maintenance, meter installation and payment administration, meter installation and payment administration, and other services. We are currently holding ongoing discussions with utilities to explore the concept of using more local contractors. This activity will receive improved emphasis once the long-term WAEP Desert-to-Power representative is fully on-board.

Benin

- **Connections in Benin:** The WAEP team completed a draft SOW to support DGRE in the Benin 250,000 connections project. While waiting for approval of the activity from USAID, the team also completed a draft LOC to formalize this collaboration, based on communication from the Minister of Energy in October 2020 proposing areas of collaboration with the Program. On December 31, USAID approved three of the five proposed areas of collaboration: (i) increase in national generation capacity; (ii) Increasing access to electricity; (iii) reinforcing transmission and distribution grid. The WAEP team will begin scoping discussions with the POC in the Benin Ministry of Energy.

Côte d'Ivoire

- **Connexions Plus:** The WAEP team intends to provide technical and advisory support to help Compagnie Ivoirienne d'Electricité (CIE) connect more customers to their electricity grid, by supporting planning activities and lowering the up-front cost of connection and/or household wiring. This assistance will also promote private sector engagement on new connections, cost-reduction, and energy efficiency activities related to helping the utility meet the country's Electricity for All Program (PEPT) goals. On October 29, the WAEP team hosted a second meeting with the CI-Energies team led by the Directeur Central Exploitation et Patrimoine (DCEP), Mr. Djaha, during which the LOC

was presented and discussed, and meeting report was issued on the ongoing discussions. This joint report is awaiting validation by Mr. Djaha.

On December 17, 2020, USAID informed the WAEP team that the standalone budget for this activity has been redirected and that a streamlined version of the Connexions Plus activity has been approved. This streamlined version should emphasize private sector engagement and partnership activities between CI-Energies, Compagnie Ivoirienne d'Electricité (CIE) and the private sector, as designed in the current SOW.

Liberia

- **Private Concessions or Franchising to Improve Collection Rates in Liberia:** ESB International Engineering and Facility Management Ltd (ESBI), LEC's management contractor funded by the MCC, is interested in alternative approaches to connect customers and increase collection rates. The WAEP team has been working with LEC and ESBI to understand collection challenges, alternative approaches that encourage private participation in distribution network billings, and considerations for a pilot program.

In November, the team collected and reviewed LEC's data and hosted weekly meetings with the LEC working group and biweekly meetings with a Steering Committee. The team also began recruiting for a Local Distribution Research Associate, who will act as the liaison for the WAEP team in Liberia and assist with data gathering, consolidation, and analysis. The team is preparing a high-level data gap analysis summarizing all information received, including energy demand, energy supply, tariffs, billing and collections, non-technical losses, customer profiles, contracts, and procurement documents.

The WAEP team began developing a report on evaluating different models to encourage private sector participation including management contracts, complete concessions (or franchises in the case of Liberia), leasing, and cooperative agreements. In early December, the team had a presentation and meeting with the Liberia Electricity Regulatory Commission (LERC) to discuss the activity, the conditions necessary to attract private sector participation, and the potential impacts of this participation. The WAEP, LEC and LERC teams will continue discussion in January 2021.

Togo

- **Engaging Sector Leadership:** On December 18, the WAEP team had a videoconference with the Minister of Energy of Togo to initiate collaboration between the Program and Togo's Ministry of Energy. The team is awaiting communication from the Ministry POC on specific areas for assistance.

2.4 Outcome 3: Performance of National Utilities and Power Sector Entities Improved

2.4.1 Activity Highlights

The WAEP team made progress on identifying regulators and utilities for targeted technical assistance. This effort was completed primarily through an analysis of regulatory and utility technical assistance needs collected through a NAST and in close consultation with regulators and utilities. As a result of the engagement and information gathered, the OC3 team will expand its regulatory strengthening and tariff regulation activities to multiple regulators, in coordination with the OC4 team where possible. The OC3 team will similarly engage several selected utilities for targeted utility performance support focused on loss reduction. The NAST enabled the identification of a short list of counterparts, allowing the WAEP team to provide support to select

Outcome 3 Highlights

- Coordinated with WAPP to distribute the NAST to 21 utilities then shared the results to the WAPP
- Coordinated with ERERA to distribute NAST to 22 national regulators then shared the results to ERERA

regulators (similar to those OC4 will support) and utilities (in line with OC1 and OC2) to focus impact and economize budget and resources. OC3's approach will focus on supporting other outcomes to achieve key metrics including MWs, connections, and kms through targeted enabling environment support. The section below presents a detailed breakdown of meetings and progress on technical activities.

Regional and Country Highlights

Regional

- **DtP Initiative:** Following the LOC between the WAEP and the AfDB/DtP Initiative teams, the WAEP team prepared proposals for technical assistance and capacity building, shaping the WAEP-DtP proposal in Burkina Faso, Niger, and Chad. These proposals represent technical assistance to both regulators and utilities in these three countries and were developed in line with the respective regulator and utility NAST effort. To ensure strong coordination with key stakeholders, the WAEP team: (i) shared the Chad technical proposal with the U.S. Government (USG) representative in Chad and held an introductory meeting; and (ii) shared the Burkina Faso assistance proposal with MCC-Burkina Faso and held a meeting with MCC.
- **Regional IPP and Public Private Partnership (PPP) Enabling Environment Assessment and Recommendations:** In alignment with the PPP/IPP Regional Assessment Report and Support Recommendations and the Year 2 SOW submitted to USAID on October 30, 2020, the WAEP team is preparing a regional capacity building toolkit. To leverage existing resources, the WAEP team is seeking to establish contact with the Commercial Law Development Program (CLDP) to understand how the two parties might collaborate. The approach to fostering an IPP's enabling environment will focus on implementing capacity building programs including Short Term Technical Assistance (STTA), on-the-job training, and formal training to the counterpart PPP/IPP program. The effort will be initially designed at the regional level to produce a foundational toolkit. Secondly, targeted training modules will be tailored to country context and scaled to a larger set of countries in the next three years, in line with MW targets.
- **Deployment of Regulatory NAST:** In this reporting period, the WAEP team continued regulatory NAST activities with a goal to finalize the effort by the end of December 2020. The OC3 team has conducted 10 NAST validation meetings with regulators and has prepared an additional seven regulatory NAST country draft reports, bringing the total number of drafted reports to 14.

The OC3 team has also drafted a regional regulatory report that provides an overview of all findings collected from the 14 NASTs completed and submitted by the regulators. This report was presented to ERERA in December 2020 and both parties identified next steps to collaborate to support the regulator's technical assistance and capacity building needs in Y2 Q2.

Finally, with the completed NASTs from regulators and based on an internally developed criterion, the WAEP team will proceed to select specific regulators for support in Year 2, and potentially subsequent years. Three of the selected regulators in Chad, Burkina Faso and Niger are part of the AfDB DtP initiative, and the WAEP team has prepared technical assistance and capacity building plans for these countries to pursue, based on the results of the regulatory NAST analysis. Additionally, the WAEP team prepared similar technical assistance and capacity building plans based on the results of the Sierra Leone Electricity and Water Regulation Commission (SLEWRC) NAST analysis and validation meetings. The WAEP team will re-engage with the regulators in these countries to validate key activities to be implemented in Year 2 in coordination with partners ERERA, AfDB and MCC. The team will also seek to finalize the validation and signature of the country reports by the regulator representative which will depend on regulators review of the report and approval of its contents to be shared externally.

- **Deployment of Utility NAST:** The WAEP team continued engagement on the utility NAST, which included liaising and coordinating with WAPP, following up with utilities, and reviewing and finalizing validation reports from utility responses. During this reporting period, the WAEP team made progress in selecting utilities for WAEP support in Year 2 and Year 3.

The WAEP team evaluated the utility survey results, selected target utilities, prepared the SOWs for the targeted assistance, and validated NAST findings with each utility and WAPP. As outlined in the Year 2 Work Plan, the WAEP team will assist the following utilities with additional utility performance technical support in Year 2: EDSA in Sierra Leone; SONABEL in Burkina Faso, NIGELEC in Niger; and potentially Electra in Cape Verde. Support to Liberia LEC and Cote d'Ivoire CI-Energies and CIE is ongoing and was reaffirmed through the NAST validation process.

In addition to preparing a report on each country that will be shared with WAPP, the WAEP team has aggregated results at a regional level and presented to WAPP on December 16, 2020. The findings of the NAST exercise have been beneficial to WAPP particularly in terms of regional harmonization. As a next step, the OC4 team, including EnerNex, are leveraging the results of the NAST in each country as they prepare a technical assistance focus to WAPP Information and Communication Center (ICC).

Burkina Faso

- **Coordination with MCC Burkina Faso:** The WAEP team discussed potential areas of technical assistance with SONABEL and Agence de Regulation du Secteur de l'Electricité (ARSE) in Burkina Faso, and prepared potential plans to support both entities under the DtP partnership. The WAEP team also conducted working sessions with MCC-Burkina Faso and agreed that the WAEP team should support existing transactions in the pipeline and provide capacity building on the IPP process to establish MCC's larger capacity building efforts. The WAEP team also discussed potential prerequisite conditions of SONABEL and ARSE with MCC to support entry into force of the Compact. The WAEP and MCC teams will continue to coordinate and will join Partenaire Technique et Financière (PTF) calls, as necessary.

Côte d'Ivoire

- **Preparation of Technical Assistance for CI-Energies:** In addition to the Connexions Plus activity, the WAEP team finalized the SOW to provide support to CI-Energies in several capacity building activities including:
 - Supporting the training of technical staff on the PowerFactory system simulation software including technical training on aspects of system performance and operation
 - Developing and managing a process to identify gaps in the transmission network asset database and to collect the missing data and fully populate the database population asset information database
 - Identifying opportunities for fast tracking technical loss reduction on the transmission network, developing cost effective solutions and preparing an Investment Profitability Index.

Liberia

- **Liberia Petroleum Regulatory Authority (LPRA) Support:** In preparation for the Liberia Petroleum Regulatory Authority suite of trainings, the WAEP team met with the LPRA officials to discuss the training and seek their concurrence on each of the specific modules. As part of the discussions, the WAEP Civil Society and Community Engagement Specialist described the civil society organization (CSO) capacity building plan for LPRA and its importance to the licensing rounds. The LPRA team accepted the plan and USAID approved delivery of the suite of trainings for the LPRA. The WAEP team is currently preparing the training series, which will cover gas-to-power, CSO involvement in

the licensing rounds, and gender mainstreaming in the gas value chain. These capacity building activities will take place virtually in February 2021.

Proposed training modules include:

Gender Module

- Why Gender Matters in Energy
- Gender Entry Points in Energy
- Attracting and Retaining Women in the Energy Workforce

CSO Module

- Global Accountability and Transparency requirements for licensing rounds
- Stakeholder Roles in the licensing rounds
- Monitoring reporting of licensing processes

Sierra Leone

- **Utility Engagement and Potential Technical Assistance and Capacity Building Plan:** In October, the WAEP team leveraged the Program's connection with MCC Sierra Leone to organize productive discussions with the utility EDSA in Sierra Leone. Following that meeting, EDSA completed the utility NAST and the WAEP team used the information to propose areas for technical assistance, including support in the reduction of technical and non-technical losses and training and capacity building on systems and software. EDSA approved the proposed areas of intervention, and the WAEP team is preparing a detailed SOW.

Senegal

- **Civil Society Organization Engagement Activity:** The WAEP team completed a SOW for the CSO activity in Senegal and agreed with CRSE leadership to deliver a tariff methodology training for CSOs, media, and consumer groups in Senegal ahead of the upcoming tariff setting process. The planned workshop will begin with a module on the foundation of tariffs and tariff methodology, then focus on CSO participation in the process. The team will continue minimal preparatory activities towards the training until the approval of the full Year 2 Work Plan by USAID.

2.5 Outcome 4: Launch of a Regional Power Market Accelerated

2.5.1 Activity Highlights

During this reporting period, the WAEP team consolidated and finalized the development of assistance activities with the WAPP Secretariat's Administration and Finance (A&F) Department and the ICC to commence in Q2. In collaboration with the WAPP ICC, the WAEP team developed a SOW for 7 areas of support and began the initial development of webinars for WAPP members on the importance and benefits of system-wide planning and appropriate power system planning tools. The section below presents a detailed breakdown of progress on technical activities.

Outcome 4 Highlights

- Finalized the SOW to provide technical support and capacity building to the WAPP ICC in accelerating the establishment of a high-functioning regional power market
- Provided support for updating the Power Africa Transmission Roadmap

Regional and Country Highlights

Regional

- **Priority Regional Power Africa (PA) Transmission Roadmap Projects in West Africa:** The WAEP team received a request from John Garrison, the Senior Energy Advisor at Power Africa, for an update on the status of WAEP's support to WAPP regional interconnectors. Furthermore, the WAEP team

was requested to support and provide information to update the Power Africa Transmission Roadmap. The update comprised of specific information to the two WAPP lines that were earmarked in the 2018 edition of the Power Africa Transmission Roadmap including:

- North Core Interconnector with three segments:
 1. Nigeria – Benin (Project A)
 2. Benin – Niger (Project B)
 3. Niger – Burkina Faso (Project C)
- OMVG Loop with two segments Guinea
 1. Guinea – Bissau (Project D)
 2. Guinea – Senegal (Project E)

The WAEP team also provided additional details on other WAPP lines that the Program is supporting including national lines, regional lines, and a WAPP region map highlighting the interconnectors under support. The WAEP team will continue providing inputs on the proposed transmission fields and updating the transmission transaction information.

- **Support to the WAPP ICC:** The team finalized the SOW to provide technical support and capacity building to the WAPP ICC in accelerating the establishment of a high-functioning regional power market. The key activities include: (i) supporting the training and certification of system operators; (ii) providing technical assistance and building the capacity of WAPP ICC to conduct system-wide adequacy and reliability studies; (iii) harmonizing regional and national power system planning through shared planning and analysis tools; (iv) facilitating accurate and real-time SCADA/EMS Data Exchange between WAPP ICC, National Control Centers (NCC), and Control Area Centers (CAC) with the WAPP; (v) provide power systems analysis capacity building for ICC, CAC, and NCC personnel; (vi) implement an ancillary services procurement roadmap for WAPP; and (vii) support the process of alignment of the Organisation pour la Mise en Valeur du Fleuve Gambie (OMVG) Grid Code with the WAPP Regional Grid Code and OPGW operating agreement.

The WAEP team received USAID approval to begin ICC support activities in FY21, and the Program informed the Secretary General (SG) Siengui A. Ki of the commencement of technical assistance to WAPP.

- **WAPP/WAEP Webinars promoting importance and value of system-wide planning and power system planning tools:** The WAEP team began preparing a series of webinars to inform WAPP, WAPP member utilities, and other stakeholders of the importance and benefits of system-wide planning and appropriate power system planning tools. Through this activity, the WAEP team plans to also identify the capacity building needs of WAPP member utilities and NCCs with respect to power system planning, and to raise awareness among industry practitioners on best practices for enhancing and aligning national and regional power system planning. The team will collaborate with WAPP ICC to deliver this support, as utilities may be more confident of the value of this training if it is pioneered by WAPP ICC. The support will directly link to WAEP Expected Results to improve the ability of WAPP ICC, CACs, and NCCs to coordinate the reliability of the WAPP Interconnected Transmission System and administer the ECOWAS Regional Electricity Market. The proposed activity was presented to WAPP ICC for buy-in in late December 2020 and was received positively. The team is now in the process of developing topics for the webinar series.
- **Support to Six Priority Interconnector Projects:** In continuation of the Program's support to priority interconnector projects within the ECOWAS region, the WAEP team scheduled meetings with Project Management Units (PMUs) to discuss shortlisted areas of support identified through the regulatory NAST. The PMUs confirmed that they were satisfied with the shortlisted areas of support. Accordingly, the WAEP team has circulated the minutes and developed SOWs. The WAEP team has also prepared an Executive Summary of the NAST evaluation exercise that will be shared with financial

partners that are funding these PMUs. The team will share this summary with WAPP PIPES Directorate and work with WAPP to schedule a call with the PMU donor community in January 2021.

- **WAPP TFP Annual and General Assembly:** The WAEP team participated in the 35th WAPP TFP Annual and General Assembly Meeting held in Lomé on December 10, 2020. The goal of the session was to build the resilience of WAPP and PMUs to maintain continuity in delivering projects and to push for continuing development of the regional electricity market amidst the current challenges created by the COVID-19 pandemic. A priority for WAPP is preventing further delay of the delivery of interconnector projects. The highlights of the meeting included an opening ceremony led by the Chairperson of WAPP Executive Board, Mr. Sule Abdulaziz, and discussions on the impact of the COVID-19 pandemic on areas including: the ECOWAS Regional Electricity Market, WAPP ICC, WAPP projects under preparation, the WAPP Capacity Building Program, and WAPP Member PMU projects. The WAEP team prepared a report on the session and shared it with WAEP program leadership and TOCOR.
- **Collaboration with the Tony Blair Institute (TBI) on the Gambia River Basin Development Organization (OMVG):** The WAEP team initiated support for the process of alignment of OMVG Grid Code with the WAPP Regional Grid Code and O&M agreement for OMVG Optical Ground Wire (OPGW). In furtherance of this activity, the team held a call with OMVG and TBI on November 20 to discuss the prospects of an engagement and the SOW for WAEP's support, which includes: (i) the development of the OMVG Grid Code and its compliance with the WAPP Regional Grid Code under development; (ii) support for OMVG regarding the O&M agreement for OMVG OPGW. The team is awaiting OMVG's approval on WAEP's proposed technical assistance.
- **WAPP's Secretariat Administration and Finance Department Engagement:** The WAEP team identified areas of support to the WAPP A&F directorate and met with WAPP's Human Resource team on the October 28, 2020 to launch discussion on gender inclusion in programming. Potential areas of technical assistance discussed included: continuing education and training, gender-sensitive project/program development, gender-sensitive monitoring and evaluation, review and enhancement of procurement policies, gender awareness training and resources, mentorship, and support to the internship programs.
- **Determining Technical Assistance for ERERA:** The WAEP team held a call with the National Association of Regulatory Utility Commissioners (NARUC) on December 2, 2020 to align potential activities in support of ERERA. During the call, it was concluded that there was no overlap between the Program and NARUC's activities supporting ERERA. The WAEP and NARUC teams agreed on a recurring check-in meeting to share ideas, news, and information on their work in West Africa.

The team held a call with ERERA on December 18, 2020 to present shortlisted activities that the Program intends to support in Year 2. The team also presented the Regulatory NAST results and possible technical assistance and capacity building needs identified from Regulators through the NAST exercise. The next meeting is planned for February 1, 2021.

3. PROGRAM MANAGEMENT, FINANCE AND OPERATIONS

3.1 WAEP PROGRAM MANAGEMENT OFFICE (PMO)

Working with Program technical teams, the Monitoring, Evaluation, and Learning (MEL) Specialist and the Knowledge Management Specialist captured and archived outputs and deliverables and fed relevant data and insights back into management and reporting functions. The following sections provide an overview of major PMO deliverables.

3.1.1 Communications and Outreach

- **Submission of content to ASSESS Newsletter:** The WAEP Communications team began submitting program related content on West Africa to the USAID West Africa Regional Economic Bulletin. The October edition of the Bulletin featured two submissions by the WAEP team: (i) WAEP's Regional team support to Compagnie Energie Electrique du Togo (CEET), to prepare a project proposal for a Universal Access Program (Programme de Branchement Universel) aiming to connect an additional 400,000 households to electricity; and (ii) the WAEP team's technical advisory services to the Government of Liberia through the LPRA, to help harness the country's gas-to-power sector and improve its economic viability.
- **Power Africa-WAEP Quarterly Call:** The Power Africa and WAEP Communications team held a call on October 19, 2020. Matters discussed included WAEP contribution to the Power Africa Annual Report, structure and frequency of social media submissions and maintaining a regular communication cadence between the teams. At the request of the Power Africa Communications Lead, Sarah Malm, the WAEP team also consolidated all WAEP success stories for FY19 and FY20 and submitted them to the Power Africa Communications team for inclusion in the Power Africa Annual Report.
- **Support to COVID-19 Redirect Webinars:** The WAEP Communications team continued supporting COVID-19 webinar preparation by reviewing draft presentations and developing the marketing products for the webinars. The team also drafted and submitted social media posts and post-webinar summaries to the Power Africa Communications team, which published post-webinar content on four sessions through the links below:
 - <https://twitter.com/PowerAfricaUS/status/1321461613363384321?s=20>
 - <https://twitter.com/PowerAfricaUS/status/1323961016963768321?s=20>
 - <https://twitter.com/PowerAfricaUS/status/1327185742813126657?s=20>
 - <https://twitter.com/PowerAfricaUS/status/1330744847112736768>

3.1.2 Environmental Mitigation and Monitoring

- **Environmental Mitigation and Monitoring Plan (EMMP):** On December 15, 2020, the WAEP team submitted the revised CLIN I EMMP for review by USAID. The EMMP outlines the guiding E&S safeguards and principles for the WAEP team's program delivery, steps and process for E&S compliance under USAID Regulation 216, and the Program's process to address requirements in the revised November 2020 Power Africa/WAEP Initial Environmental Examination (IEE). The revised EMMP included environmental determinations per intermediate results and outlined identified E&S impacts and proposed mitigation measures delineated by Program tasks. In addition, the revision includes a climate risk management matrix and description of potential climate change risks and mitigation measures per Program outcome. This document will serve as the guiding document for the Program's E&S compliance activities.
- **E&S Guidance Manual & Training:** The WAEP team prepared an Environmental Management Guidance Manual to accompany the EMMP. The manual aids with continuity of processes by WAEP

E&S and technical team members and includes standard operating procedures for environmental review, risk assessment, mitigation, monitoring, and reporting. In early October 2020, the ESIA team conducted a virtual internal training for staff covering how to use the manual and the Program's environmental compliance requirements, as they applied to Work Plan activities based on international leading practices and Regulation 216.

- **Screening of Work Plan Activities:** The Environmental Compliance team began reviewing ESIA information for transactions that corresponded with activities classified as “Negative with Determination” (i.e., further screening is needed, and mitigation measures may be warranted) under the IEE and EMMP. The ESIA team reviewed and completed the Power Africa Environmental and Social Review Methodology (PESRM) checklists for Ciprel V Transmission line, Malicounda, Proparco I, Kingulé aval hydroelectric, Bumbuna II hydroelectric, and Djermaya solar.

3.1.3 Monitoring, Evaluation, and Learning (MEL)

- **FY2020 Performance Plan Reporting (PPR):** In response to the PPR Data Call received from USAID, the MEL team updated the template with indicator targets for FY20 to FY22, the disaggregate results for FY20 and provided a rationale for FY21 targets and an analysis for current and future performance.
- **Annual Progress Reporting:** The MEL team worked with Outcome teams to finalize results for Year 1 and targets for Years 2 through 4 for reporting in the Annual Progress Report and to update the MEL Plan.
- **Joint Power Africa Implementing Partner MEL Share:** The MEL team hosted the first quarterly joint call with the MEL teams from the Nigerian Power Sector Program (NPSP), East Africa Energy Program (EAEP), and the Southern Africa Energy Program (SAEP). The topics covered during the meeting included: general sharing about current status of MEL on each team, experiences with Annual Progress Reports and approaches to facilitating learning within technical teams. The group also decided on an agenda for the next meeting.
- **Power Africa Tracking Tool (PATT) Update:** The MEL team updated WAEP's transactions with outdated Financial Close (FC) dates, based on feedback from the Transaction Advisors. This was in response to a request from the Power Africa Data Team.
- **CLIN I MEL Plan Revision:** The team updated the MEL plan with Year 1 Results and Targets for Years 2 through 4. The definition for Wholesale Cost of Generation (Indicator #2) was also revised. The document was submitted to USAID for review and approval on November 5.
- **Indicator Baseline:** The MEL team worked with the technical teams to outline plans and provide timeframes for conducting baseline assessments for outstanding performance indicators
- **PATT Customer Relationship Management (CRM) Training:** The MEL team participated in a Power Africa-hosted training on how to navigate the PATT system to get information into and out of the system, engage with the CRM functionality, and view and create associations between transaction records, partner records, and success stories and news. This will increase transparency and information sharing among programs.

3.1.4 Gender Strategy and Integration

- **West Africa Power Pool (WAPP) Gender Mainstreaming:** During this reporting period, the WAEP Gender team developed a survey instrument to establish a gender baseline in WAPP's Secretariat and PMUs (i.e. determine organizational culture and willingness to mainstream gender in its operations). Once approved by WAPP with agreed timelines, the WAEP Gender team will administer the survey and prioritize interventions.

- **ECREEE Collaboration:** During this reporting period, the WAEP Gender team continued to discuss with ECREEE potential activities within the two agreed-upon areas of collaboration: the Regional Women's Association and the Regional Internship Program. WAEP presented two options and is awaiting ECREEE's feedback.
- **Gender Mainstreaming in Utilities:** NIGELEC, the national electric power generation and transmission utility in Niger, expressed interest through the NAST in mainstreaming gender and social inclusion in its operations, particularly the hiring and retention of more women personnel. The Gender team has started designing capacity building support for NIGELEC, including a gender training for staff.
- **Capacity Building Training for Liberia Petroleum Regulatory Authority (LPRA):** The Gender team contributed to a WAEP Capacity Building Action Plan for LPRA. The team has started to design targeted gender mainstreaming training modules for LPRA and its stakeholders, likely to be delivered in the next quarter.
- **Power Africa Gender Champs-Communities of Practice (COP):** WAEP continued to participate actively in the monthly Power Africa Gender Champs COP sharing information, updates, and lessons learned.

3.2 Finance and Operations

3.2.1 Finance and Operations Activity Highlights

Throughout FY21 Q1, the WAEP team continued to operate in a WFH posture due to the COVID-19 pandemic. During this period, the WAEP team finalized a plan with specific instructions and guidance on the phased return of staff to normal operations. The plan aims to allow for Program operations in line with health guidelines that minimize the spread of the COVID-19 virus and keep staff safe. This plan incorporates a risk assessment that will be conducted before Program staff can physically return to work or travel and provides guidelines to help staff stay safe during travel and handle emergency health situations related to COVID-19.

In anticipation of returning to the office, the WAEP Operations and Procurement teams coordinated delivery of office furniture and IT equipment purchased and took steps to prepare the office for on-site work.

Subcontracting: In Q1, the WAEP team completed the following subcontracting actions with service providers to provide technical assistance, advisory support and capacity development:

- **Deloitte Côte d'Ivoire:** Issued two new task orders to provide CLIN I technical support in connection with the Connexions Plus, NAST, DtP, and transaction advisory activities.
- **EnerNex:** Issued a new task order for work under OC 4 to provide technical support and capacity building to the WAPP ICC in connection with accelerating the establishment of a high-functioning regional power market.
- **Manitoba Hydro International (MHI):** Received USAID Contracting Officer approval to contract with MHI.

3.2.2 Program Staffing Highlights

The WAEP Operations team continues to identify, staff, and relocate relevant resources to support the completion of Year 2 Work Plan activities. Please refer to Annex I for the WAEP Organizational Chart for the Region.

The following Program staffing changes occurred in FY21 Q1:

Table 2: Long-term Staffing Changes in this Reporting Period

Name	Role	Location	Mobilization Date
Sandra Ricka	Regional OCI Deputy Lead	Côte d'Ivoire	11/09/2020
Ingrid Yovo	Home Office Project Coordinator	USA	11/10/2020
Amadou Diallo	Guinea Country Manager / OC 3 Lead	Conakry, Guinea	12/02/2020
Nadja Akaaba Moore	PMO Lead	Accra, Ghana	12/21/2020

No STTA mobilized during the period of October – December 2020.

4. Risks, Challenges, and Mitigation Measures

This section of the report presents potential risks and challenges identified during this reporting period and WAEP's plans to mitigate the risks or address the challenges.

Table 4: Issues and Constraints Facing WAEP Implementation

Risks and Challenges – Description	Comments / Status / Mitigation
<p>COVID-19 Pandemic</p> <p>In March 2020, the COVID-19 pandemic began, which affected the work environment for the WAEP team and all counterparts.</p>	<ul style="list-style-type: none"> • The COVID-19 pandemic persists in the region, with new cases continuing to increase in most West African countries. In addition, many countries have recently recognized the existence of new, more contagious strains of the virus. As such, the WAEP team will continue to deliver Program activities remotely, with face to face meetings being limited to only when deemed essential and when staff safety can be reasonably assured. • The COVID-19 pandemic may result in decreased investment. To minimize long-term funding risks, the Program will pay particular attention to articulating its value proposition, highlighting 'Success Stories' from the Program and demonstrating tangible returns for taxpayer funds in activity implementation, so that the benefits of such programs are evident to U.S. audiences in addition to host country stakeholders. The Program will closely monitor budgets and other resources devoted to program activities and interventions, establishing regular budget planning and review cycles and building flexibility and contingencies into budgets for unexpected events and risks throughout the Program cycle.
<p>Delays in Funding Guidance for Year 2 and Funding Obligations</p> <p>On June 16, Deloitte submitted a Limitation of Funds (LOF) notice to the Contract Officer (CO). The CO issued a contract modification on November 2, providing an additional \$4 million in funding.</p> <p>On November 23, Deloitte issued a second LOF and indicated that 95% of funding would be expended by January 15, 2021. Current projections indicate funding will last until the end of February 2021. Deloitte is awaiting further communication on this topic from the CO.</p>	<ul style="list-style-type: none"> • In October 2020, the WAEP team took measures to slow down the CLIN I burn rate to extend the existing funding, keeping the CLIN I TOCOR informed. Measures included encouraging team members to take voluntary Personal Time Off, capping hours for part-time team members, and postponing start dates of new staff. On October 29, Deloitte issued stop work notices to subcontractors and independent consultants working on CLIN I. Once a contract modification with additional funding was received on November 2, the Program reengaged these contractors and resumed all activities. • The WAEP Team maintained active engagement with stakeholders and counterparts throughout this period, however, the delivery slow-down in October impacted the momentum of Program activities and the morale of team members. • To mitigate the potential for another delivery slow-down or stoppage, Deloitte is providing the ATOCOR with regular updates on funding projections. • As of the time of finalizing this quarterly report (January 30, 2021), WAEP's CLIN I Year 2 Work Plan has yet to be approved. As a result, the Program has delayed engaging new STTAs and issuing new subcontract task orders, which has helped stretch existing funding beyond the original projection.

5. Key Activities for Next Quarter

In line with the approved activities by USAID, the following major activities and tasks will commence in Q2:

Outcome 1 – Increased Supply of Power

- **IRP and/or Master Plan Support:** CRSE in Senegal requested support from the WAEP team in the development of an IRP to support decision-making and facilitate efficient investments and resource allocation. The related SOW has been agreed upon and the WAEP team will commence the delivery of technical assistance. This assistance will also include development of a handbook and capacity building activities for staff to promote the continuity and improvement of the IRP.

Niger and Sierra Leone have expressed interest in similar support. For Niger, the WAEP team intends to support the revision of the Distribution Master Plan. For Sierra Leone, the team is scoping activities with the Planning Unit of the Ministry of Energy, with the support of MCC-Sierra Leone. One area of interest is the energy demand assessment work as a component of the Master Plan in Sierra Leone.

- **Energy Demand Assessment Support in Three Countries:** As part of the COVID-19 Redirect activities, the WAEP team will continue to support Senegal, Sierra Leone and Benin. In Senegal, the SOW is validated, and work will commence with SENELEC in Q2. For Benin and Sierra Leone, the team will finalize SOWs to start in work in Q2.
- **Engagement with CI-Energies:** The WAEP team will engage CI-Energies to select relevant pipeline projects to support and tailor SOWs for this activity.

Outcome 2 – Access to Reliable and Affordable Grid-Based Power Increased

- **Support to CI-Energies for Connections Program:** Through engagement with CIE and Connexions Plus, WAEP expects to support 150,000 new connections between January 2021 and September 2021 by:
 - Reducing cost of connections and adopting the latest technical standards system-wide
 - Improving electrical safety and household wiring
 - Increasing productive and educational uses of electricity
 - Bringing more women into the electrification process
 - Integrating the private sector into downstream usage
- **250,000 Connections Project in Benin:** This activity will be implemented through assistance in: (i) identification of appropriate donors; and (ii) demonstrating to donors and the Government of Benin the economic return to the nation of electrification in terms of enhanced productivity, education, health care and agricultural production.
- **Assistance to Togo's Minister of Energy:** As an outcome of the call between WAEP and Togo's MOE on December 18, the WAEP team will continue to scope technical assistance opportunities.

Outcome 3 – Performance of National Utilities and Power Sector Entities Improved

- **Loss Reduction with CI-Energies and CIE:** The WAEP team will begin a comprehensive and advanced training on DigSilent PowerFactory software for CI-Energies and CIE staff to improve technical performance of the transmission grid and identify interventions for loss reduction.

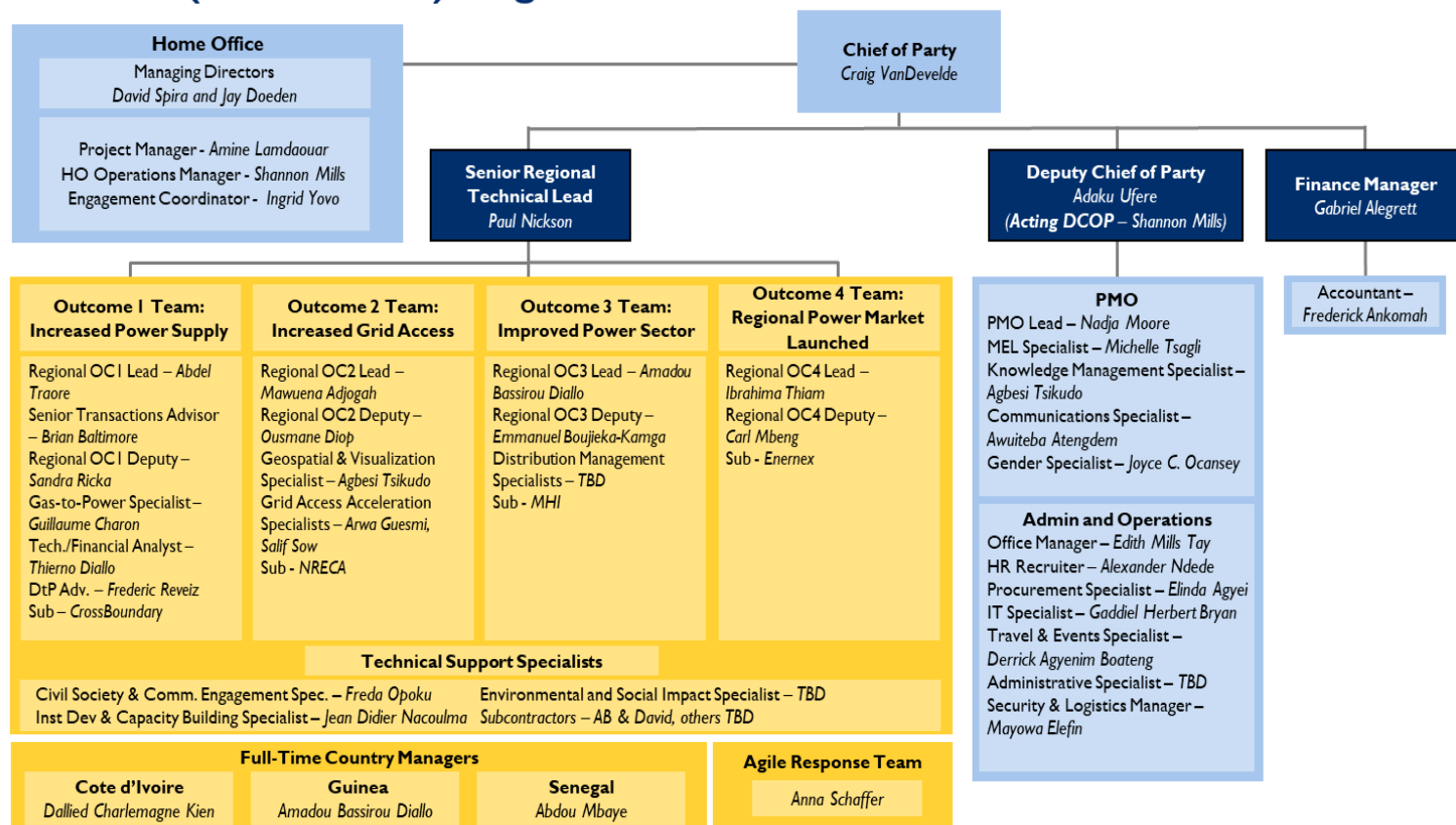
- **LEC Franchising Activity:** To provide sound recommendations for private sector participation, the WAEP team will collect and validate LEC data. The WAEP team will also support LEC in its review of proposals from private sector firms for the management of operations in counties under LEC's mandate and will assist with the procurement process for a long-term private sector partner.
- **DtP Targeted Support to Utilities and Regulators:** Following the AEMP Round Table in December 2020, the team will begin delivering targeted support to utilities and regulators in Chad, Burkina Faso and Niger under the umbrella of DtP.

Outcome 4 – Launch of a Regional Power Market Accelerated

- **Presentation of Shortlisted Activities to WAPP Donor Community:** The WAEP team will present the NAST exercise and shortlisted activities for WAPP priority regional interconnector projects to the WAPP donor community for review and approval.
- **Delivery of Support for WAPP ICC:** The WAEP team will begin delivering targeted support for the WAPP ICC. The team plans to provide technical support and capacity building to the WAPP ICC in accelerating the establishment of a high-functioning regional power market.
- **Delivery of Targeted Support to ERERA:** The WAEP team will start delivering targeted support to ERERA and national regulatory agencies to build their capacity to monitor the regional electricity market and to implement Market Regulations for WAPP's real-time energy exchange.

Appendix A: Organization Chart

CLIN I (West Africa) Org Chart



Appendix B: Program Travel in FY21

Table 5: Approved and Completed/Ongoing Travel for FY21

Location	Purpose	Timeframe	Name, Role
Accra, Ghana	As part of the LTТА deployment of Mayowa Elefin, the WАEP Security and Logistics Manager, his three dependents traveled to join him in Accra	LTТА	Dependents of Mayowa Elefin, Security and Logistics Manager: <ul style="list-style-type: none">• Omolara Elefin• Oyindamola Elefin• Oluwaseyi Elefin
Accra, Ghana	Deployment for LTТА assignment in Accra	LTТА	Brian Baltimore, CLIN I Senior Transaction Advisor

Appendix C: Success Stories

Power Africa Supports Loan Acquisition for an Additional 645 MWs of Power on Côte d'Ivoire's Grid



Transmission lines and infrastructure in Côte d'Ivoire.

Photo Credit: CI-Energies

“CI-Energies is satisfied with the quality of Power Africa’s support on the legal scope during negotiations with lenders for financing the evacuation network associated with Azito IV and Atinkou (Ciprel V) power plants. This successful closure will enable access to the necessary resources to deploy electricity to our end-users and contribute to economic development.”

Mamery Serifou
Director of Economic and Financial Studies
Direction Centrale Gestion Finances (DCGF)
CI-ENERGIES

This report is made possible by the support of the American people through the United States Agency for International Development (USAID). The contents of this report are the sole responsibility of Deloitte Consulting LLP and its implementing partners and do not necessarily reflect the views of USAID or the United States Government.

The USAID-funded Power Africa West Africa Energy Program (“WAEP” or “The Program”) is helping Côte d'Ivoire increase the power supply while making progress on the country's climate change goals. Through the Program's support, the national utility Côte d'Ivoire Energies (CI-Energies) secured a USD \$127 million loan to finance a 400 kV transmission line, connect 645 MW of power generation to the country's grid and 70km of transmission line.

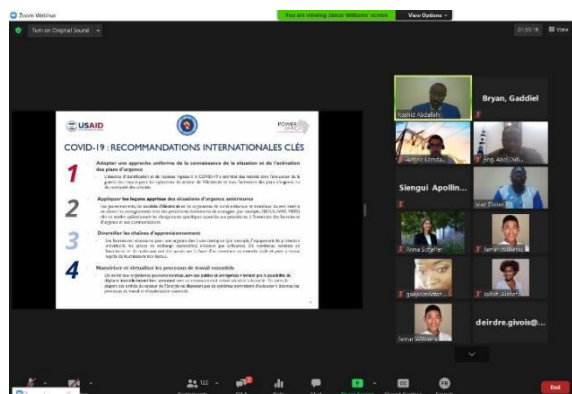
Energy demand in Côte d'Ivoire remains relatively high and the World Bank forecasts that demand will continue to increase by eight percent annually. The country is a signatory of the Paris Agreement for climate change and, as such, has an objective of greenhouse gas reduction of 28 percent by 2030 (2012 as the baseline). According to the IFC, the necessary investment to reach this objective is estimated at USD \$9 billion. To make additional power available to Côte d'Ivoire's citizens, the Program assisted the CI-Energies with applying for a loan from the West African Development Bank (BOAD).

Power Africa supported the legal side of the loan agreement and checked that each step of the agreement was developed under best international practices. The Program's support led to: (i) formalizing the engagement of BOAD as lead loan arranger and first disbursement operator (ii) clearing all the condition precedents to make CI-Energies compliant with BOAD requirements (iii) arranging the syndication of other banks (ECOWAS Bank for Investment and Development and Atlantic Bank of Côte d'Ivoire).

This intervention of Power Africa eventually unlocked a loan of USD \$127 million and was signed on September 22, 2020. The loan will cover the cost of engineering and deploying the transmission line to connect 255 MW from the power generation facility Azito IV and 390 MW from the CIPREL V both of which would otherwise have been stranded assets.

Power Africa will continue to collaborate with counterparts on projects to bring additional, affordable energy to the region.

WAEP Partners with APUA to Bring Successful COVID-19 Webinar Series to West African Utilities



WAEP COVID-19 Webinar 1, Impact of COVID-19 on the Power Sector in West Africa

Photo credit: PA WAEP

"I have appreciated the team spirit of Organizers and all involved in Webinars. It was a great experience; my commitment is to improve and contribute better to face various challenges in energy System."

Webinar 2: Communication within the Utility, Hamadou Bivoung, Technical Advisor to the CEO, ENEO

"Thank you for organizing this very useful webinar to understand the challenges arising from Covid-19 in electricity companies in Africa"

Webinar 4: Customer Engagement Strategies, attendee response to feedback survey

"Very interesting training session with lot of materials for utilities to use for their preparedness"

Webinar 3: Business Continuity Planning, attendee response to feedback survey

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In the aftermath of COVID-19's unprecedented impact on the African Power Sector, the WAEP team partnered with the Association of Power Utilities of Africa (APUA) to bring a five-part webinar series aimed towards enabling West African Utilities to overcome the impacts of the pandemic. The webinars aired Tuesday mornings at 11 am GMT between October 2020 and December 2020.

The webinars were centered on five key areas: the impact of COVID-19 on the West Africa Power sector, Internal crises communications, Business continuity planning, shifts in customer engagement practices, and methods of financial planning to mitigate negative impacts of COVID-19. These were all topics utilities expressed interest in understanding how to navigate in their conversations with WAEP.

Before proposing ways to resolve issues exacerbated by COVID-19, it was important to explore the impact of COVID-19 on the sector. Research and poll results from utilities revealed working from home was the most difficult internal challenge utilities felt they had to overcome, especially since this required a successful internal communications strategy. Polls also revealed that 95% of utilities felt their financial health was adversely affected by COVID-19. The Business Continuity Planning and Financial Planning webinars sought to target these issues by presenting crisis planning strategies and alternative channels for generating funds. The fourth webinar, focused on Customer Engagement Strategies, also worked in service of aiding financial recovery through discussions around effective payment collection methods, including mobile payments, to help utilities secure more revenue and cut losses.

The WAEP team sought to accommodate French, English, and Portuguese language speakers by conducting Webinars in French, simultaneously translating to English through Zoom interpretation channels, and sending webinar materials in English, French and Portuguese.

The series saw nearly 500 participants with over 20% female attendees across the five-webinars, including 16+ utilities and some Power Sector training institutions across the African continent.

The Program will continue to seek opportunities to develop useful training and toolkits that will further enable utilities to realize their mission. In the immediate future, the team is planning a virtual panel on Power Purchase Agreements (PPA) Negotiation and Management in January 2021 to help utilities in the region address challenges of PPA negotiations.

Appendix D: Technical and Contractual Deliverables Submitted

Table 7: Deliverables submitted from October to December 30, 2020

Deliverable Title	Deliverable Description	Date of Submission
Loss Reduction Technical Assistance Presentation for Sierra Leone EDSA	This is a presentation of proposed technical assistance to the utility in Sierra Leone, EDSA	October 16, 2020
Prepared but not submitted Report on Evaluation of DRC Power Sector and Legal Framework (in French and in English)	Work commenced in accordance with approved YIWP (YI.CI.IR3.I-T1.a DRC), but subsequently halted on instructions from USAID.	October 21, 2020
Prepared but not submitted Road Map to Operationalization of ARE	Work commenced in accordance with approved YIWP, but subsequently halted on instructions from USAID.	October 21, 2020
IPP Enabling Environment SOW	This SOW outlines WAEP OC1 and OC3 teams' approach to supporting the enabling environment for IPP development in select countries for Year 2. The intention will be that this approach and the toolkits to be built in Year 2 can be scaled to additional countries in Years 3 and 4 This SOW is built from the findings and conclusions of the IPP PPP Regional Landscape Assessment Summary Report	October 30, 2020
PPP/IPP Regional Assessment and Support Recommendations	This PDF includes a 10-page report on regional findings concerning enabling environment for PPP and IPPs, as well as a framework for supporting countries according to level of maturity of their enabling environment for IPP development	October 30, 2020
PPP/IPP Enabling Environment Country Assessment Briefs	The team developed assessments for 12 countries in total and shared six with USAID. These six countries are where we will focus implementation in Year 2	October 30, 2020
Terms of Reference for WAEP Support to Sierra Leone EDSA	After buy-in from EDSA, this is a more detailed SOW outlining WAEP technical assistance to EDSA for next two years focused primarily on loss reduction	October 30, 2020
Activity Monitoring, Evaluation & Learning Plan - Resubmission	Overall approach to monitoring and evaluating activity targets using agreed-upon indicators	November 3, 2020
Webinar Presentation in French and English of Webinar #3 on Business Impact Assessment and Continuity Planning	Provide utilities with knowledge and tools to develop/revise their business continuity plans	November 3, 2020
October Monthly Report	Program progress update for October 2020	November 6, 2020
Communication Strategy - Resubmission	Multi-year plan for producing success stories and other communications materials that summarize the impact of the interventions	November 10, 2020

Webinar Presentation in French and English of Webinar #4 on Customer Engagement during COVID-19	Discuss methods and channels to effectively engage clients and improve client relations	November 10, 2020
Branding Implementation Plan and Marking Plan - Resubmission	Multi-year plan for ensuring standardized, USAID and Power Africa policy-compliant branding and marking on the full spectrum of communications products and deliverables	November 10, 2020
WAEP Year 2 Procurement Plan - Resubmission	List of Year 2 Commodities Procurement and Budget	November 13, 2020
Gender Strategy and Gender Integration Plan - Resubmission	Four-year gender strategy and gender integration plan to track integration of gender issues by activity	November 16, 2020
Webinar Presentation in French and English of Webinar #5 on Assisting in Financial Planning for Utilities Negatively Impacted by COVID-19	Provide tools and financial planning strategies to aid utilities' recovery from financial losses caused by COVID-19	November 17, 2020
SLEWRC NAST WAEP validation report	This report is based on the responses of Sierra Leone Electricity and Water Regulatory Commission (SLEWRC) in terms of technical assistance and capacity building needs. We propose to validate this report with SLEWRC and finalize it. The report will be shared with ERERA, who is looking to have a landscape analysis of needs of regulators. We would also seek to share the report with AfDB	November 17, 2020
SLEWRC Pitch Deck of Proposed Technical Assistance	Present the summary of potential technical assistance and capacity building activities that WAEP could pursue in strengthening regulators	November 17, 2020
EDSA NAST WAEP Validation Report	This report is based on the responses of Electricity Distribution and Supply Authority (EDSA) in terms of technical assistance and capacity building needs. We propose to validate this report with EDSA and finalize it. The report will be shared with WAPP, who is looking to have a landscape analysis of needs of utilities. We would also seek to share the report with APUA if permitted by EDSA	November 17, 2020
Communication Strategy - Approved	Multi-year plan for producing success stories and other communications materials that summarize the impact of the interventions	November 30, 2020
Branding Implementation Plan and Marking Plan - Approved	Multi-year plan for ensuring standardized, USAID and Power Africa policy-compliant branding and marking on the full spectrum of communications products and deliverables	November 30, 2020
Management and Staffing Plan - Approved	Overall management approach for the implementation of its Statement of Work and the Annual Work Plan	November 30, 2020
Quarterly Accrual Report	Financial accruals and projections for the upcoming quarter	December 6, 2020

November Monthly Report	Program progress update for November 2020	December 8, 2020
Summary of Utility NAST Regional Findings presented to WAPP	Presentation of key findings from Utility NAST Deployment to WAPP	December 13, 2020
Donor Coordination Matrix	A list of 103 donor projects and includes details, amounts and contact persons	December 15, 2020
Revised CLIN I Year 1 Work Plan Annex 3 – Monitoring, Evaluation, and Learning Plan	Overall approach to monitoring and evaluating activity targets using agreed-upon indicators	December 15, 2020
Revised CLIN I Year 2 Work Plan	Revised program work plan	December 17, 2020
Report on the energy demand of the Guinea mining industry	Assessment of the energy demand in the Guinea Mining sector	December 18, 2020
Summary of Regulatory NAST Regional Findings presented to ERERA	Presentation of key findings from Utility NAST Deployment to ERERA	December 18, 2020
Revised CLIN I Annual Progress Report	Program progress report for Fiscal Year 2020	December 23, 2020
Revised Environmental Mitigation and Monitoring Plan (EMMP)	Documents how the Contractor's proposed activities and interventions will comply with Section 117 of the Foreign Assistance Act of 1961	December 24, 2020

Appendix E: Detailed Activity Progress

The table below provides a status overview of WAEP activities that are currently approved. Currently approved activities include Year 1 Continued Activities; COVID-19 Redirect Activities; and, Year 2 Pre-Approved Activities. This list does not reflect the Year 2 Work Plan in its entirety given the Regional Year 2 Work Plan is currently under review. This table tracks the status of activities and highlights any activity changes, timing changes or other major items related to activities that the WAEP team would like to amend for the period. All activities crossed out have been removed from the Work Plan and activities highlighted in red are amended/newly added activities to the Year 2 WAEP Work Plan.

Table 8: Outcome Activities and Results

Outcome I

Activity #	Activity	WAEP Delivery Team	Start-End Dates	Linkages	Deliverable	Status
Year 1 Continued Activities						
Y1.C1.IR1.1-T2.c REG	Build and advance WAEP Pipeline to provide Transaction Advisory Support to the Private Sector	Senior Transaction Advisor, Brian Baltimore	Ongoing	IR 1.2 Task 2 IR 1.3 Task 3	<ul style="list-style-type: none"> Roadmap of generation targeted transactions QTATs Transaction advisory agreements for eligible Transactions 	In Progress: Upcoming agreements are expected with CI-Energies, Malicounda and Linsan–Manéah Transmission Line. The team performed PESRM checklists for Malicounda and Ciprel V Projects and did not find E&S constraints for continued support.
Y1.C1.IR1.2-T1.a REG	Identify countries where master plans are needed or under development and align with Country Strategies. Prepare proposed technical assistance offers for buy-in with target countries where TA is needed for master planning	Outcome I Lead, Abdel Karim Traore	Y1 Q3 – Y2-Q2	IR 4.1	Finalized Scope of Work, and actions taken on initial phases of Scope to provide TA for Master Planning in 1 country	In Progress: The WAEP team has identified Senegal, Niger, Guinea, Sierra Leone, Burkina Faso as good candidates to undertake this activity. Niger and Senegal confirmed their interest with a LOC signed for the latter and a SOW that the Program shared with CRSE. For Niger, the SOW will be developed jointly with OC2 as the master plan intends to cover only the distribution sector in Niamey. It is also intended that the Mining study should feed the update of the Master Plan in Guinea. If validated as such the intervention will cover Guinea effectively and be deployed through the NAST launched by OC3 in collaboration with OC1. The team will engage Sierra Leone and Burkina Faso to further clarify their needs and

						develop the SOW accordingly.
Y1.C1.IR1.2-T1.c SEN	Provide technical assistance to the Senegalese Ministry of Energy CRSE and the utility in Integrated Resources Planning	Senegal Country Manager, Abdou Mbaye	Y1Q3 – Y2Q4	IR 1.2 Task 2	Finalized Scope of Work, and actions taken on initial phases of Scope	In Progress: The SOW was discussed with CRSE and minor comments received with minimal change to the intervention. The WAEP will start delivery in Y2Q2 with a dedicated resource.
Y1.C1.IR1.2-T2.a REG	Provide transaction advisory support across the gas value chain	Gas-to-Power Specialist, Guillaume Charon	Ongoing	IR 1.1 Task 2	Transaction Advisory Support	In Progress: WAEP Gas-to-Power Specialist and Transaction Advisory team are identifying pipeline opportunities.
Y1.C1.IR1.2-T2.b SEN	Provide transaction support to SENELEC, the Ministry of Energy, the CRSE and private developers in fuel-fired power plants conversion into gas-fired power plants	Gas-to-Power Specialist, Guillaume Charon	Y1Q3 – Y2	IR 1.1 Task 2	Transaction Advisory Support	In Progress: WAEP Gas Technical Specialist and Transaction Advisory team are identifying pipeline opportunities.
Y1.C1.IR1.2-T2.c CDI	Support developers of LNG to Power Solutions in Côte d'Ivoire	Gas-to-Power Specialist, Guillaume Charon	Y1Q3 – Y2	IR 1.3 Task 2	Transaction Advisory Support	In Progress: WAEP Gas Technical Specialist and Transaction Advisory team are identifying pipeline opportunities.
Y1.C1.IR1.2-T2.d REG	Develop West Africa Gas Roadmap	Gas-to-Power Specialist, Guillaume Charon	Y1Q3 – Y2Q4	IR 1.2 Task 2	West Africa Gas Roadmap	In Progress: Gas to Power Specialist is updating the Regional Gas Assessment.
Y1.C1.IR1.3-T2.c REG	Develop and implement gas to power training to SENELEC, CRSE and IPPs	Gas-to-Power Specialist, Guillaume Charon	Y1Q4 – Y2Q2	IR 1.2 Task 2	<ul style="list-style-type: none"> • Training Materials • Facilitated Trainings 	In Progress: Gas to Power specialist preparing for initial training in March 2021.
Y1.C1.IR1.3-T3.a GUI	Support procurement for two 10MW solar parks in Kankan and Siguir	CrossBoundary, Fanta Conde	Y1Q2 – Y2	IR 1.3 IR 1.4 IR 3.3	Technical assistance for bidding framework	In Progress: The RFI was presented and submitted to the Minister of Energy. The Minister of Energy is reviewing the proposed approach.
Y1.C1.IR1.5-T1.b REG	Engage and develop TA Plans with CLSG and OMVG	OC4 Lead, Ibrahima Thiam	Y1Q2 – Y2	IR 1.5 Task 1	<ul style="list-style-type: none"> • Letter of Support agreed upon with TRANSCO and OMVG PMU • Targeted (Virtual) Training Sessions or Workshops 	In Progress: The team is working to solidify technical assistance terms of support with OMVG. Work with CLSG is ongoing.

Y1.C1.IR1.5-T2.a GUI	Support financing of Kaleta-Maneah 750MW transmission line	CrossBoundary, Fanta Conde	Y1Q2 – Y2Q4	IR 1.1 Task 2 IR 1.5 Task 1	<ul style="list-style-type: none"> • Fit Check • MOU for Technical Assistance with WAEP • TAS for transmission transaction 	In Progress: The team is reframing the SOW with the guidance of the USAID local mission, related to seeking collaboration with Agence Francaise de Développement (AFD) and clarifying the value-add of WAEP effectively.
COVID-19 Redirect Activities						
Y1.C1.IR1.1- COVID1	For projects that are about to close and facing financing challenges, support developers to find new financing sources or secure risk mitigating products to close on financing	Senior Transaction Advisor	Y1Q4 – Y2Q1	IR 1.4	Identification of innovative products to help catalyze FC	Complete: CIPREL V transaction was delayed due to the COVID-19. The WAEP team successfully took this activity to FC. After conducting a proper due diligence, the WAEP team has not identified any other sponsors falling under this scope.
Y1.C1.IR1.2- COVID1	Conduct energy demand assessments to improve demand forecasting and energy balancing facilities and assess the impact of COVID-19 in three countries	Technical and Financial Analyst	Y1Q4 – Y2Q3	IR 3.2	Energy demand assessments (one per country)	In Progress: The WAEP team identified Senegal, Benin and Sierra Leone as candidates to undertake this support. Senegal and Sierra Leone confirmed interest in this activity. The SOW was shared and validated by Senegal. The work will start in Y2Q2 as soon as the recruited staff for SENELEC are fully onboard. The team is yet to engage the planning unit of the MOE of Sierra Leone to discuss the SOW. In Benin the work will be coordinated with the OC2 team leading the relationship with the POC within the Ministry cabinet to share and discuss the draft SOW.
Y1.C1.IR1.3- COVID1	Provide capacity building activities to government counterparts to review and strengthen existing PPAs in the context of force majeure	Senior Transaction Advisor	Y1 Q4 – Y2 Q1	IR 1.4	Capacity building services and technical advisory	Complete: Webinar training delivered
Year 2 Approved Activities						
Y2.C1.IR1.1-T1.a REG	Collaborate with AfDB on DtP; activity to increase MWs and connections Includes Djermaya Project in Chad	OCI, 2, 3 Leads and Deputy Leads, Senior Transaction Advisor,	Y2 Q1 – Y4 Q4	IR 1.3 IR 1.4 IR 2.1 IR 2.2	<ul style="list-style-type: none"> • Transaction advisory for bidding and negotiation, power sector planning and project oversight • Training on competitive procurement process 	In Progress: AfDB DtP Advisor continues to proceed on Djermaya project in Chad. The team continues to prepare implementation for Burkina Faso, Chad, Niger, and potentially Mauritania taking TIP designation into account.

		Technical Advisors		IR 2.3 IR 3.1 IR 3.2 IR 3.3	<ul style="list-style-type: none"> • Training on technical and financial evaluation of offers • Training in generation/IPP project financial analysis / power project finance 	
Y2.C1.IR1.1-T1.b REG	Transaction Advisory Support for 34MW Kingulé Aval hydroelectric power plant in Gabon	OCI, 2, 3 Leads and Deputy Leads, Senior Transaction Advisor, Technical Advisors	Y2Q1 – Y4Q4	IR 1.3 IR 1.4	<ul style="list-style-type: none"> • Transaction advisory for bidding and negotiation, power sector planning and project oversight 	No work performed other than to follow progress of project. Pending (a) go-ahead from USAID to work on private projects in Gabon, and (b) confirmation that the tariff is sufficient to make this a viable IPP.
Y2.C1.IR1.1-T2.e BEN	Transaction advisory support to relevant stakeholders in Benin	Senior Transaction Advisor, CrossBoundary/ Transaction Advisor, Transaction Advisor, Gas-to-Power Specialist, Financial Analyst, Power System Planner	Y2Q2 – Y2Q4	IR 1.3 Task 3 IR 1.4 Task 3	<ul style="list-style-type: none"> • Further developed pipeline and transaction advisory support • Maria Gleta expansion • Advise on the critical area of gas supply and the multitudes of options, including: (i) import through WA Gas Pipeline from either Ghana or Nigeria; (ii) import LNG through a FSRU supplied by Total; (iii) import LPG and (iv) given low oil prices, whether best to leave on HFO. • 25MW solar PV at Illoulofin, awarded to Eiffage RMT through a tendering process supported by the AFD; • Four solar PV projects totalizing 50 MWs (15 MWs at Bohicon; 15 MWs at Parakou; 10 MWs at Djougou; and 10 MWs at Natitingou), which is currently being tendering with the support of MCC • 850km North-core transmission backbone 	In Progress: This activity was initiated in collaboration with MCC Benin who set-up all initial meetings, including those with the Ministry. MCC's focus is primarily the utility, SBEE, and the regulator. WAEP is largely responsible for providing professional counsel to the Ministry of Energy, which is overseeing MCC and other donor interventions. Progress for Y1 has been largely agreeing on a framework for WAEP which will provide essential advice on mobilization of funding for new connections and overall distribution network planning. WAEP will also assist the Government with fuel and renewable alternatives for generation expansion.
Y2.C1.IR1.2-T2.b CIV	Transaction support for 50MW Peaker Plant in Côte d'Ivoire	Gas-to-Power Specialist, OCI Lead, Senior	Y2Q2 – Y2Q3	IR 1.4 Task 3	<ul style="list-style-type: none"> • Finalized SOW 	Not started

		Transaction Advisor, Country Manager			<ul style="list-style-type: none"> Transaction advisory support Assistance in raising finance 	
Y2.C1.IR3.3-T1.a REG	<p>Deliver support to multiple PPP bodies, utilities and regulators at scale to improve transparent IPP development and competitive bidding process</p> <p>Sierra Leone – Contribute to development of two IPPs</p>	Country Manager, Legal Expert, Procurement Specialist, Financial Analyst, PPP Advisor	Y2Q1 – Y2Q4	IR 1.3 Task 1, 3	<ul style="list-style-type: none"> Transaction advisory for bidding and negotiation, power sector planning and project oversight Training on competitive procurement process Training on technical and financial evaluation of offers Training in generation/IPP project financial analysis / power project finance 	In Progress: The team is preparing QTATs for two transactions and identifying targeted training needs related to the IPP process.
Y2.C1.IR1.4-T1.b CIV	Support CI-ENERGIES with its various programs to improve grid planning and increase generation and transmission	Senior Transaction Advisor, Deputy Lead OCI, CrossBoundary Transaction Advisor, Country Manager CIV	Y1Q4 – Y4Q4	IR 1.1 Task 2 IR 1.2 Task 1 IR 1.3 Task 3 IR 1.5 IR 1.6	Increased pipeline and transaction advisory support	In Progress: The Program's engagement is pending CIE's signing of the LOC.
Y2.C1.IR1.5-T2.c REG	OMVG PMU for Guinea/Gambia/Guinea Bissau/ Sierra Leone/Senegal	OC4 and OCI teams with external consultant support	Y2Q1 – Y3Q4	IR 1.1 IR 1.4 IR 4.2	Possible assistance depending on final results of NAST	In progress: Pending update from OMVG in regards to WAEP's proposed assistance.
Year 2 Additional Activities Requiring USAID Approval						
Y2.C1.IR1.2-T2.c MAU	Provide transaction advisory support to private sector entities only in Mauritania, namely Kosmos Energy in coordination with AfDB	Gas-to-Power Specialist, OCI Lead, Senior Transaction Advisor	Y2Q2 – Y2Q4	IR 1.1 IR 1.3	Transaction advisory support	Pending USAID approval
Activity #	Activity	WAEP Delivery Team	Start-End Dates	Linkages	Deliverable	Status

Year 1 Continued Activities						
Y1.C1.IR2.2-T3.c TOG	Support CEET to design and prepare a project proposal for a bankable on-grid universal access program	Guillaume Charon	Y1Q4 – Y2	IR 1.4	Project proposal for a 400,000 universal connection program	In Progress: The WAEP team is in discussions with the Presidential Cabinet Representative in charge of universal connections to outline terms of support, and also schedule a meeting with the newly appointed Minister of Energy.
COVID-19 Redirect Activities						
Y1.C1.IR2.1-COVID I	Assess impacts on national universal electricity access activities or connection activities in two countries	OC2 Lead, OC2 Deputy Lead, Country Managers, Utility Business and Operations Specialists	Y1Q4 – Y2Q1	IR 1.4	<ul style="list-style-type: none"> • Electrification strategy and rollout impact assessment (one per country) 	In Progress: The team is engaging with Benin MOE and Senegal's SENELEC.
Y1.C1.IR2.1-COVID I	Assess impacts on national universal electricity access activities or connection activities in two countries	OC2 Lead, OC2 Deputy Lead, Country Managers, Utility Business and Operations Specialists	Y1Q4 – Y2Q1	N/A	<ul style="list-style-type: none"> • Electrification strategy and rollout impact assessment (one per country) 	In Progress: The team is engaging with Benin MOE and Senegal's SENELEC.
Y1.C1.IR2.3-COVID I	Provide advisory to government to assess and structure potential subsidies, grants that may be required to ensure vulnerable households are still able to access basic electricity services in one to two countries	OC2 Lead, OC2 Deputy Lead, Country Managers, Finance Specialist	Y1Q4 – Y2Q1	N/A	<ul style="list-style-type: none"> • Report of subsidy and grant recommendations 	In Progress: The team is engaging with Benin MOE.
Year 2 Approved Activities						
Y2.C1.IR2.2-T1.a LIB	Support Alternative Power Delivery in Liberia	Senior Distribution Advisor, Distribution / Concession Management Expert, Research Analyst	Y1Q4 – Y2Q4	IR 1.4 Task 1 IR 3.2	<ul style="list-style-type: none"> • LOC signed with LEC/ESBI • Steering committee terms of reference • RFP guidelines for revenue management concession • Trainings on private sector participation in power delivery 	In Progress: The team is in the data gathering phase to prepare market analysis of the market and propensity for private sector engagement. LEC is weighing private sector engagement opportunities with support from then WAEP team.

Y2.C1.IR2.2-T2.a CIV	AFD Electrification Program in Côte d'Ivoire	Côte d'Ivoire Country Manager, OC2 Lead, OC2 Deputy Lead, Project Manager, Research Analyst	Y1Q4 – Y2Q4	IR 1.2 Task 1 IR 2.1 Task 1, 2, 3, 5 IR 3.3 Task 1, 3 IR 4.1 Task 1 IR 4.2 Task 1, 2, 4	<ul style="list-style-type: none"> • LOC with CI-ENERGIES for AFD electrification program implementation support • Capacity building/training report on project management • Assessment report identifying technical assistance and capacity building needs of CI-ENERGIES to manage the AFD program 	In Progress: Activity under evaluation by CI-Energies and CIE in parallel to signing the LOC.
Y2.C1.IR2.2-T3.b REG	Under DtP, work with AfDB and donors, including MCC, to encourage more private contractors in planning, financing, construction and operation for distribution networks	DtP Enabling Environment Advisor, NRECA	Y1Q4 – Y4Q4	IR 1.1 IR 1.2 IR 1.3 IR 1.4 IR 2.1 IR 3.2 IR 3.3	<ul style="list-style-type: none"> • Recommendations and demonstration of pilots for concessions of distribution networks 	In Progress: The WAEP team is coordinating with other donors in the region to determine best approach to support connections.
Y2.C1.IR2.2-T3.e CIV	Under Connexions Plus, analyze potential investment options for the revolving fund to crowd-in private sector investors and DFIs	Financial Analyst; Innovative Finance Specialist, Connexions Plus Senior Advisor	Y1Q3 – Y2Q1	IR 1.4	<ul style="list-style-type: none"> • PEPT revolving fund sustainability and private partner analysis • Support to mobilize financing for PEPT 	In Progress: Activity under evaluation by CI-Energies and CIE in parallel to signing the LOC.
Y2.C1.IR2.2-T3.f BEN	Support SBEE and MoE to facilitate financing of connections in Benin	OC2 Lead, OC Deputy Lead, Financing Specialist	Y2Q2 – Y2Q3	IR 1.4	<ul style="list-style-type: none"> • Assessment for the pilot project • Final progress report of the pilot project • Feasibility study for the generalized project • Final progress report of the universal electrification program 	In Progress: The WAEP team to proceed on implementation in coordination with donor community. Further detail will be provided to USAID on next steps regarding connections activity.

Outcome 3

Activity #	Activity	WAEP Delivery Team	Start-End Dates	Linkages	Deliverable	Status
Year 1 Continued Activities						
Y1.C1.IR3.3-T1.a SEN	Provide technical assistance to the utility, CRSE, and other relevant public entities in improving IPP competitive bidding process based on gas, domestic gas market development	Gas-to-Power Specialist, Guillaume Charon	Y1Q4 – Y2	IR 1.3 Task 3	Advisory support for financial planning Training: Procurement Competitiveness	In Progress: Based on results of NAST from CRSE, this activity is confirmed to focus on capacity building of CRSE to understand the IPP bidding and evaluation process. There will also be a component of the training focused specifically on project development in the gas sector.
Y1.C1.IR3.1-T1.b REG	Design proposed TA and engage buy-in from 1-2 regulators for regulatory strengthening	Emmanuel Boujjeika	Y1Q2 – Y2	IR 1.3 IR 3.3	<ul style="list-style-type: none"> Country-specific Regulatory Gap Assessments Pitch deck of proposed reform strategies for regulatory strengthening 	Complete: The OC3 team completed the distribution of NAST and collection and analysis of data. Now they are validating the Gap Assessment reports with regulators before sharing with ERERA and wider donor community. The team is moving forward on engaging regulators for strengthening activities.
Y1.C1.IR3.2-T1.c REG	Design proposed TA and engage buy-in from 1-2 utilities for loss reduction	Outcome 2 Deputy Lead, Ousmane Diop	Y1Q2 – Y2		<ul style="list-style-type: none"> Pitch deck of proposed loss reduction strategies and commercial improvements for select utilities MOU or Letter of Support outlining support for loss reduction for 1-2 utilities 	Complete: The team completed the distribution of NAST, collection and analysis of data. Now they are validating the Gap Assessment reports with utilities before sharing with WAPP and the wider donor community. The WAEP team is moving forward on engaging utilities for loss reduction activities.
Y1.C1.IR3.2-T2.b REG	Support gender mainstreaming efforts in 1 utility	Gender Specialist	Y1Q4 – Y2	Cross-cutting	<ul style="list-style-type: none"> Gender Analysis Report (based on shortlisted utilities and NAST responses) Letter of Collaboration with utility Progress Reports 	In Progress: Nigelec has expressed interest for support. Scoping of activity and kickoff is ongoing.

COVID-19 Redirect Activities						
Y1.C1.IR3.2-COVID1	Business Impact Assessment: Assess near-term potential impacts of COVID-19 and economic context on generation and transmission projects and planning in three countries	Vince Micali	Y1Q4 – Y2Q1	N/A	COVID-19 impact analysis (one per country)	Complete: Webinar training delivered
Y1.C1.IR3.2-COVID2	Support review and strengthening of Business Continuity Plans in three countries	Vince Micali	Y1Q4 – Y2Q1	N/A	Business Continuity Planning Webinar	Complete: Webinar training delivered
Y1.C1.IR3.2-COVID3	Assist in Financial Planning for three to five WAEP utilities negatively impacted by COVID-19	Brian Baltimore	Y1Q4 – Y2Q1	N/A	Financial Planning Webinar	Complete: Webinar training delivered
Y1.C1.IR3.3-COVID1	Conduct studies of planned use of COVID-19 stimulus funding by the host country government in three countries / Develop innovative financing schemes that leverage domestic COVID-19 stimulus financing in one to two countries	Financial Advisor	Y1Q4 – Y2Q1	N/A	Financial Planning Webinar, that includes guidelines on stimulus funding from DFIs	Complete: Webinar training delivered
Year 2 Approved Activities						
Y2.C1.IR3.2-T1.d CIV	Support loss reduction activities together with CI-ENERGIES and CIE	Côte d'Ivoire Country Manager, Regional OC3 Deputy Lead, EnerNex, OC3 Lead	Y2Q1 – Y2Q4	IR 3.2 Task 2-6	<ul style="list-style-type: none"> Baseline assessment of technical and non-technical losses and cost/benefit analysis. This work is already partially complete Oversight of key technical and investments to reduce losses 	In Progress: EnerNex's contract to begin support to CI-ENERGIES and CIE began in January 2021.
Y2.C1.IR3.2-T1.b SL	Support loss reduction, performance improvements and new connections for EDSA (Sierra Leone)	Engineering and utility financial specialists, Regional OC3 Lead, Regional OC3 Deputy Lead	Y2Q1 – Q4	IR 3.2 IR 3.3	<ul style="list-style-type: none"> Scope of Work (SOW) for EDSA developed Turnaround plans and baseline assessment (as needed) for EDSA showing the recommended activities for loss reduction baseline, including IT, metering, billing and collections Strategy and action plan for loss reduction 	<p>In Progress: The WAEP team in conversations with EDSA leadership to shape terms of support.</p> <p>The team also seeking to validate proposed support with MCC in light of recent announcement of new Compact.</p>

					<ul style="list-style-type: none"> • Training on commercial systems, network modelling for performance improvement • Technical assistance for software integration where feasible 	
Y2.CI.IR3.3-T1.a REG	Deliver support to PPP bodies, utilities and regulators at scale to improve transparent IPP development and competitive bidding process – Only Sierra Leone – Contribute to development of two IPPs	Country Manager, Legal Expert, Procurement Specialist, Financial Analyst, PPP Advisor	Y2Q1 – Y2Q4	IR 1.3 Task 1, 3	<ul style="list-style-type: none"> • Transaction advisory for bidding and negotiation, power sector planning and project oversight • Training on competitive procurement process • Training on technical and financial evaluation of offers • Training in generation/IPP project financial analysis / power project finance 	In Progress: The WAEP team is preparing QTATs for two transactions and identifying targeted training needs related to the IPP process.
Year 2 Additional Activities Requiring USAID Approval						
Y2.CI.IR3.1-T2.f CHD	Draft the concession contract of performance between SNE (the utility) and the GoChad in accordance with the law	Regulatory Specialist, PPP Contract Specialist, Financial Specialist, OC3 Lead, Deputy OC3 Lead	Y2Q2 – Y2Q4	IR1.3	Concession contract of performance between GoChad and SNE	In Progress: This activity is being executed together with AfDB and represents a milestone in professional private power delivery in the Sahel, particularly since it is a 40MWV renewable project with battery storage. Financial close is expected by May 2021.
Y2.CI.IR3.1-T2.d CHD	Design a tariff methodology as well as establishing a methodology for accounting for government diesel and HFO subsidies to the utility SNE	Regulatory Specialist, Tariff Setting Expert, Deputy OC3 Lead	Y2Q2 – Y2Q4	IR1.3, IR3.1	<ul style="list-style-type: none"> • Tariff methodology designed • Methodology for accounting for GoChad subsidies for diesel and HFO <p>Training records on tariff methodology</p>	This activity falls under our proposed partnership with AfDB/Desert to Power and potentially the AfDB Regulatory Unit. The team seeks approval to begin delivery on it.
Y2.CI.IR3.1-T2.e CHD	Design the royalty calculation methodology to support financial resources mobilization of ARSE Chad	Regulatory Specialist,	Y2Q2 – Y2Q4	IR1.3, IR3.1	Draft decree including royalty schemes that IPPs and SNE to use for required financial resources to be sent to ARSE Chad	This activity falls under our proposed partnership with AfDB/Desert to Power. The team seeks approval to begin delivery on it.

		Financial Specialist Deputy OC3 Lead				
Y2.C1.IR3.1-T2.h NIG	Develop a uniform regulatory accounting system and provide associated targeted capacity building	Regulatory Specialist Financial Specialist Tariff Setting Specialist	Y2Q2 – Y2Q4	IR1.3, IR3.1	<ul style="list-style-type: none"> Regulatory accounting rules Training records on these regulatory accounting rules 	This activity falls under our proposed partnership with AfDB/Desert to Power. The team seeks approval to begin delivery on it.
Y2.C1.IR3.3-T1.b SEN	Support to SENELEC in IPP tendering and evaluation or renegotiation of PPAs already in-effect	Country Manager, Procurement Specialist, Financial Analyst, PPP Advisor, Gas-to-Power Specialist	Y2Q1 – Y2Q3	IR 1.3	<ul style="list-style-type: none"> Leading practices recommendations on design of financial models Training report on competitive procurement process 	<p>Pending USAID approval</p> <p>In Progress: SENELEC and CRSE are analyzing offers and negotiating unsolicited proposals based on their experience but require more capacity building.</p> <p>This support will be targeted to advancing bottlenecks faced by SENELEC and CRSE.</p>
Y2.C1.IR3.2-T6.b SEN	Support SENELEC, CRSE and the Ministry in the utility unbundling process	Senegal Country Manager, Regulatory Specialist / Energy Reform Specialist, Leading Practices Analyst	Y2Q1 – Y2Q2	IR 3.3 Task 4	<ul style="list-style-type: none"> Benchmarking analysis Proceedings from training or workshop to present analysis and leading practices Virtual study tour to see and discuss with other country stakeholders, hear and learn from them 	Pending USAID approval

Outcome 4

Activity #	Activity	WAEP Delivery Team	Start-End Dates	Linkages	Deliverable	Status
Year I Continued Activities						

Y1.C1.IR4.1-T1.a REG	Assess existing national and regional electricity master plans to identify misalignment	Ibrahima Thiam	Y1Q4 – Y2Q4	IR 1.1 IR 1.2 IR 3.3 CLIN 2, IR 1.2 IR 1.5	Power planning misalignment analysis and harmonization recommendations	Ongoing
Y1.C1.IR4.2-T2.b REG	Identify available financing platforms and tools and assess their applicability to West Africa	Jean Claude Maurice	Y1Q4 – Y2Q1	IR 1.3 IR 1.4 IR 4.3 CLIN 2, IR 1.4	<ul style="list-style-type: none"> Financing platforms and tools report with recommendations on where to apply certain tools 	Not Started
Y2.C1.IR4.3.T3.b. REG	Provide Power Systems Analysis Capacity Building for ICC, CAC and NCC personnel	Maya Prica	Y2Q2 – Y2Q4	IR 1.5 IR 3.3	<ul style="list-style-type: none"> Power systems, markets and IT Capacity building Assessment report covering personnel in NCCs, CACs, and WAPP ICC Curricula, delivery plan, training materials for priority modules 	Ongoing
Y1.C1.IR4.2-T2.a REG	Assess and prioritize transmission financing gaps across West Africa	Jean Claude Maurice	Y2Q1 – Y2Q1	IR 1.4 IR 1.5 CLIN 2, IR 1.4	<ul style="list-style-type: none"> Report on PPPs for transmission projects Briefing on risk allocation models, commercial arrangements, and agreements suitable for private finance of transmission projects to be shared with CLDP for development of handbook on transmission financing Briefing on traditional and non-traditional transmission project finance approaches in West Africa to be shared with CLDP for development of handbook on transmission financing 	Ongoing
Y1.C1.IR4.3-T3.a REG	Support the process of alignment of Organisation pour la Mise en Valeur du Fleuve Gambie (OMVG) Grid Code with the WAPP Regional Grid	Maya Prica Adbou Mbaye Ibrahima Thiam	Y1Q4 – Y2Q3	IR 1.2 IR 1.5 IR 3.3	<ul style="list-style-type: none"> Analysis of OMVG Grid Code scope and main aspects 	Ongoing (approved by USAID, waiting for OMVG, Mr. Diallo for approval for Deloitte to issue CESI TO)

	Code and OPGW operating agreement				<ul style="list-style-type: none"> • Gap analysis between OMVG Grid Code and WAPP Regional Grid Code <p>Review of the O&M agreement for OMVG OPGW</p>	
Y1.C1.IR4.3-T4.a REG	Identify national investment gaps and support mobilization of necessary financing	Sophia Tijani Carl Mbeng	Y1Q2 – Y2Q3	IR 4.3	<ul style="list-style-type: none"> • National investment requirements analysis • Analysis of potential financing mechanisms • “Donor call” workshop to mobilize necessary financing 	Ongoing
Year 2 Approved Activities						
Y2.C1.IR4.1-T1.a REG	Harmonize regional and national power planning through shared planning and analysis tools	Maya Prica CESI/EnerNex	Y2Q1 – Y2Q2	IR 1.1 IR 1.2 IR 3.3 CLIN 2, IR 1.2	<ul style="list-style-type: none"> • Analysis of regional needs for power systems analysis and planning tools • Development of a regional concept for harmonization based on shared power systems analysis and planning tools • Evaluation of power planning software alternatives • Recommendations for WAEP support to power planning tools • Software training(s)/workshop(s) • Implementation roadmap 	Ongoing
Y2.C1.IR4.3-T2.b REG	Conduct system-wide studies and build WAPP ICC capacity to conduct the studies	Maya Prica CESI/EnerNex	Y2Q2 – Y3Q1	IR 1.2 IR 3.3 CLIN 2, IR 1.2	<ul style="list-style-type: none"> • Review of WAPP ICC Business Process Documents • Report summarizing WAPP ICC skills and recommendations for 	Ongoing

					<ul style="list-style-type: none"> capacity building to achieve system study self-reliance • Generation Adequacy Study • Transmission Adequacy Study • Security assessment • Regional grid flexibility assessment • Optimal Power Flow (OPF) and reactive power planning study 	
Y2.C1.IR4.3-T1.c REG	Support the training and certification of system operators	Maya Prica CESI/EnerNex	Y2Q3 – Y2Q4		<ul style="list-style-type: none"> • Review/appraisal of the World Bank (WB) supported Operator Training and Certification program 	Not started
Y2.C1.IR4.3.T3.a.R EG	Support the development and implementation of an ancillary services market roadmap for WAPP ICC	Maya Prica CESI/EnerNex	Y2Q1 – Y2Q3	IR 4.3	<ul style="list-style-type: none"> • Practical proposals on a country level based on the current (2020) situation in the WAPP Countries • Roadmaps for implementing a WAPP A/S market 	Not started (kick-off meeting during the week of March 1)
Y2.C1.IR4.3-T2.d REG	Facilitating accurate and real-time SCADA/EMS Data Exchange between WAPP ICC, National Control Centers, and Control Area Centers with the West African Power Pool	Maya Prica CESI/EnerNex	Y2Q1 – Y2Q2	IR 1.2 IR 1.5 IR 3.1	<ul style="list-style-type: none"> • Review/confirmation of previous GE SCADA/EMS audit • Recommend measures to ensure that the data provided from NCC's are accurate, adequate and communicated seamlessly so as to allow the ICC to perform its operational functions 	Not Started
Year 2 Additional Activities Requiring USAID Approval						
Y2.C1.IR4.1-T1.c REG	Establish ERERA's capacity to monitor the regional electricity market	OC4 Lead OC4 Deputy Lead OC4 Lead, Market Specialist (Crissy Godfrey) Potomac Economics	Y2Q1 – Y2Q4	IR 1.2 IR 3.3 CLIN 2, IR 1.2	<ul style="list-style-type: none"> • Training materials and reports • Implementation roadmap • Workshop(s) 	Pending USAID approval

Y2.C1.IR4.1-T1.b REG	Build ERERA's capacity to implement Market Regulations for WAPP's real-time energy exchange	OC4 Lead OC4 Deputy Lead OC4 Lead, Market Specialist (Crissy Godfrey) Potomac Economics	Y2Q2 – Y2Q4	IR 1.2 IR 3.3 CLIN 2, IR 1.2	<ul style="list-style-type: none"> • Policy Paper • Implementation roadmap 	Pending USAID approval
Y2.C1.IR4.2-T1.a REG	Support sourcing for Donor Funding for the BICC	OC4 Deputy Lead, experts)	Y2Q2 – Y2Q4	IR 1.3 IR 1.4 IR 4.3 CLIN 2, IR 1.4	<ul style="list-style-type: none"> • Donor prospectus for BICC Funding • “Donor Call” workshop 	Pending USAID approval
Y1.C1.IR4.3-T1.a	Build capability to operate an interconnected synchronous power system (Big Brother RTO to WAPP)	Maya Prica Crissy Godfrey Ibrahima Thiam Collaboration with PJM, NREL or G-PST (TBD)	Y2Q2 – Y2Q4		<ul style="list-style-type: none"> • TBD 	Pending USAID approval
Y2.C1.IR4.3.T2.c.R EG	Support to WAPP's market platform evolution process	Maya Prica Ibrahima Thiam SAEP Consultants/ or Potomac Economics	Y2Q2 – Y2Q4		<ul style="list-style-type: none"> • TBD 	Pending USAID approval

Appendix F: Performance Indicator Tracking Chart

The table below illustrates the progress of the Program against approved indicators

Table 9: Program Performance against Indicators

No	No. Indicator	Data Source	Disaggregation	FY21 Target	FY21 Q1 Actual	Actual to Date (Q1)	% Achieved (FY 21)
1	Generation Capacity Reached Financial Close: Number of MW from transactions that achieved financial close (PA #8)	Financial closure documented through press release, written email or letter from counterpart noting financial close reached, or financial close bank documents if possible given confidential information restrictions	Technology (Hydro, solar, geothermal, wind, renewable biomass, gas); Country; Qualified vs Power Africa transaction; USG vs Non-USG	1103 MW	390 MW	390 MW	35.4%
2	Wholesale cost of generation	Utility and regulator documentation	Country	3%, 2 countries; 5%, 1 country	---	---	---
3	Kilometers of power lines constructed Rehabilitated: The sum of linear kilometers of new, reconstructed, rehabilitated or upgraded transmission and distribution lines that have been energized, tested, and commission/installed with USG, development partner or private sector partner support (PA#19)	Project progress reports; USG agencies (including MCC, USAID)	Transmission vs Distribution; Country; Name of Project (if applicable); Start and end point; Commissioning date	2000 km (0)	---	---	---
4	Electricity Access: Number of new grid and off-grid actual direct connections (PA #3)	Program records	Type of Connection, Type of Enterprise, Country; USG vs Non-USG	390,000	---	---	---

No	No. Indicator	Data Source	Disaggregation	FY21 Target	FY21 Q1 Actual	Actual to Date (Q1)	% Achieved (FY 21)
5	Average cost to utility per connection	Utility records and potentially Ministry of Energy or other IFI/donor records that are working on connection costs	Country, Utility, Connection category	I	---	---	---
6	Aggregate Losses: Total technical and non-technical electricity losses/total electricity generated (PA #22)	Utility documentation	Criteria (MWh entered the distribution system, technical losses, total MWh purchased), Country, Utility	I	---	---	---
7	Cost recovery	Utility documentation	Country, Utility	I	---	---	---
8	Utility performance (frequency of outages, duration of outages)	Utility documentation	Utility, Country	I	---	---	---
9	TWh additional cross border power trade	WAPP and other countries within WAEP's scope	Countries connected; WAPP membership (Y/N)	0.11 TWh	---	---	---
10	Generation Capacity Pending Financial Close: Number of MW from transactions that have not yet achieved financial close (PA #6)	Program records	Country; Transmission vs Generation; clean energy technology vs Hydrocarbon-based technology; existence of female ownership in development consortium; Transaction stage	10081 MW	---	---	---
11	Transactions pending financial closure: Number of transactions that have not yet achieved financial close (PA#7)	Program records	Technology (Hydro, solar, geothermal, wind, renewable biomass, gas); Country; Qualified vs Power Africa Transaction; USG vs Non-USG	70	---	---	---

No	No. Indicator	Data Source	Disaggregation	FY21 Target	FY21 Q1 Actual	Actual to Date (Q1)	% Achieved (FY 21)
12	Transactions reached financial closure: Number of transactions that have achieved financial close (PA#9; EG.12-5)	Financial closure documentation	<i>Technology (Hydro, solar, geothermal, wind, renewable biomass, gas); Country; Qualified vs Power Africa Transaction; USG vs Non-USG</i>	10	1	1	10%
13	Kilometers of transmission and distribution lines reached financial close with WAEP support (PA#20)	Financial closure documentation	<i>Country</i>	TBD	---	---	---
14	Amount of investment (millions of US\$) mobilized for energy projects by USG	Program records	<i>Type; Funding Participant; Country</i>	TBD	\$717.16M	\$717.16M	---
15	Electricity Access: Number of new grid and off-grid anticipated direct connections at financial close (PA #2)	Program records and utility documentation, including customer connection documents; procurement documents, government negotiated agreements, financial documents, and investment agreements	<i>Type of Connection</i> <i>Type of Enterprise</i> <i>Country; USG vs Non-USG</i>	3,110,000	--	---	---
16	Average time required to get a connection	Ministry of Energy records (connection and sales records), National Electrification Program (NEP), and/or utility records	<i>Country/Utility; Type of Enterprise (# Residential connections, # Business (commercial and/or industrial) connections, # of Unknown)</i>	1	---	---	---
17	Cost of connection for end-users	Utility documentation	<i>Country, utility</i>	1	---	---	---
18	Regional power utility trade relationships	WAPP; PPA documentation	<i>NA</i>	1	---	---	---
19	Control area centers operationalized	WAPP	<i>Control Center, Criteria of progress</i>	1			

No	No. Indicator	Data Source	Disaggregation	FY21 Target	FY21 Q1 Actual	Actual to Date (Q1)	% Achieved (FY 21)
20	High priority regional transmission projects operationalized	WAPP and where required individual utility data surveys/ collection	Project; Country/Countries; Percent completion of operationalization criteria	1	---	---	---
21	Policy reforms: Laws, policies, strategies, plans, or regulations officially proposed, adopted, or implemented	Record of laws, policies, strategies, or regulations	National or Regional; Country; Policy Reform Status; Focus of Reform; Policy Reforms	22	---	---	---
22	Institutions with improved tariff advocacy capacity	Project progress reports; MEL Tool	Location, Stage	4	---	---	---
23	Number of institutions with improved capacity to address clean energy issues as supported by USG assistance (EG. 12-2)	Program records	Country; National (energy technology); Sub-national (energy technology); WAPP-specific institutional capacity improvements	25	---	---	---
24	Women in leadership roles	Program records	Country, Role/Profession	4	---	---	---
25	Reports, analysis, reviews, action plans, procurement documents, tools developed, and campaigns and study tours implemented	Program records	Campaigns, Workshops	80	34	34	42.5%
26	Training and Capacity Building Activities: Number of people trained in technical energy fields supported by USG assistance (PA#18; EG.12-1)	Program records	Gender, Female = 39	500	147	147	29.4%
27	Person hours of training	Program records	Clean Energy Adaptation, Sustainable Landscapes, Cross-cutting climate change	3000	220.5	220.5	7.35%

No	No. Indicator	Data Source	Disaggregation	FY21 Target	FY21 Q1 Actual	Actual to Date (Q1)	% Achieved (FY 21)
28	National energy mix showing percent MW from clean energy technologies in each country	Project progress reports; MEL Tool	Technology, Country	NA	---	---	---
29	Utilization risk mitigation tools	Project progress reports; MEL Tool	Type of Tool, Country	NA	---	---	---
30	U.S. exports for energy projects	USTDA, EXIM, Department of Commerce	Country	NA	---	---	---